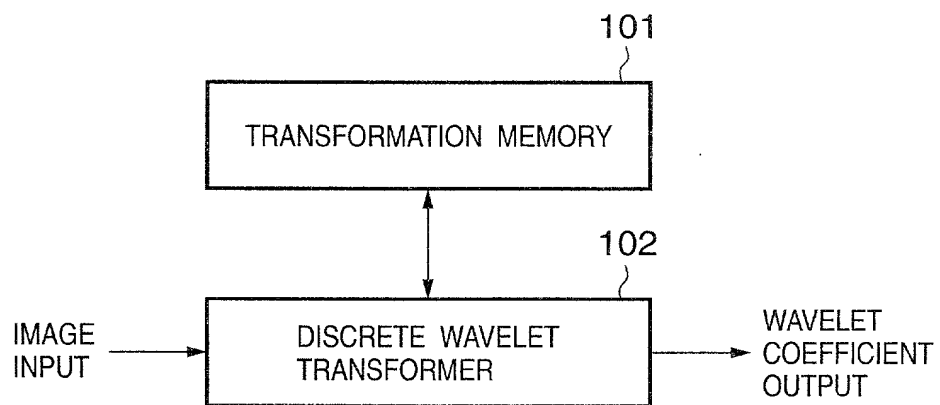


FIG. 1



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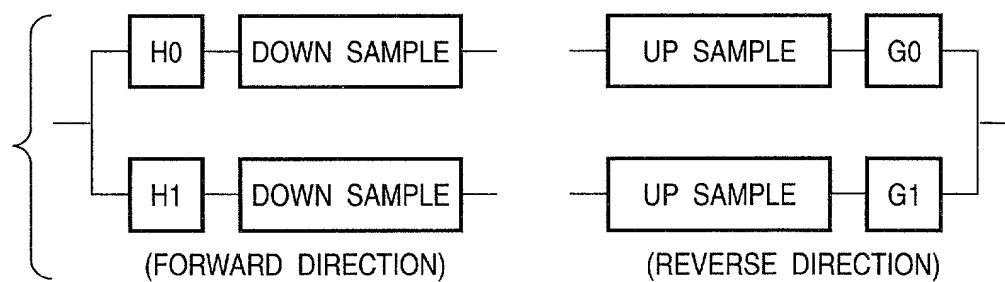
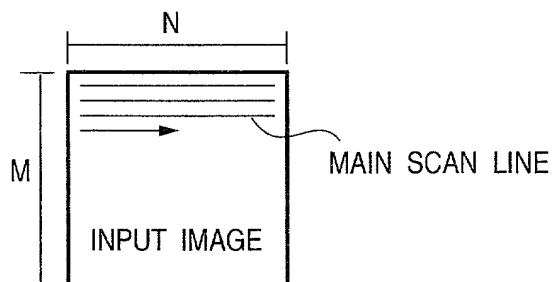
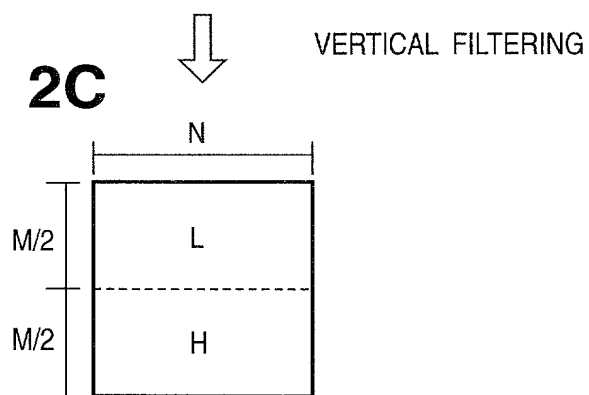
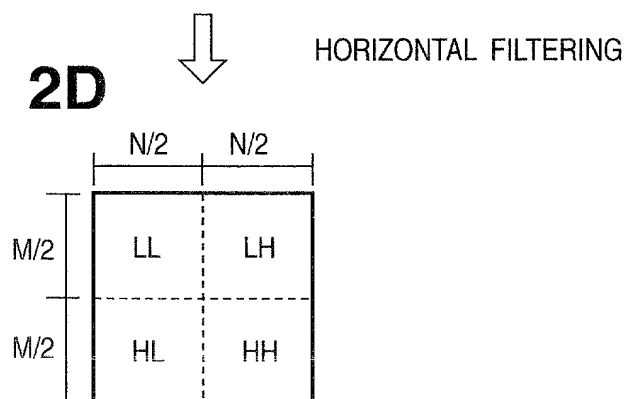
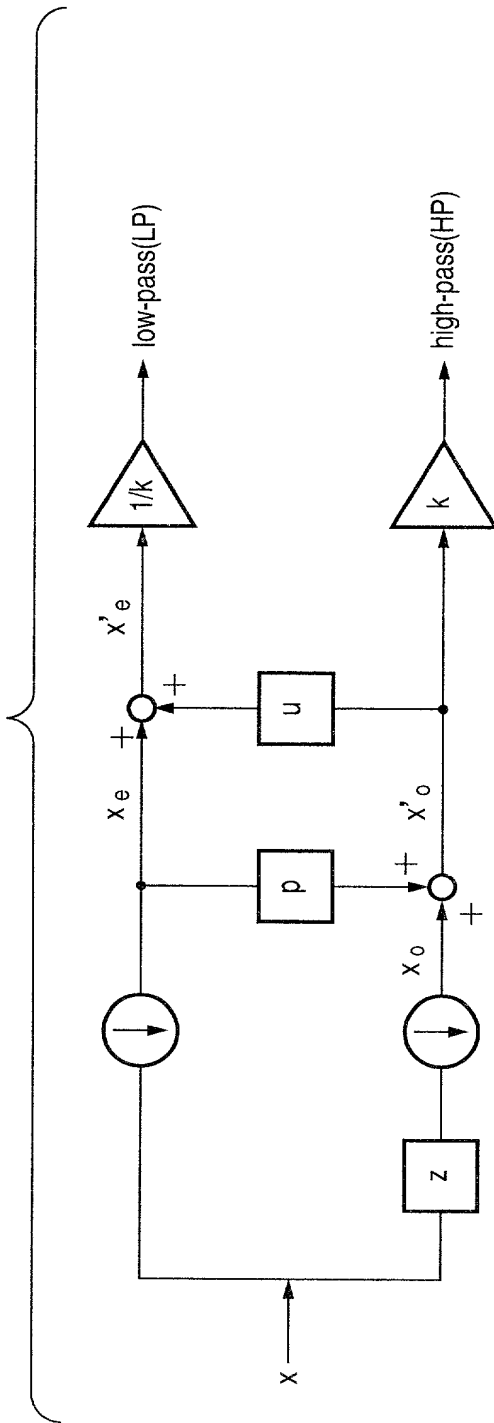
FIG. 2A**FIG. 2B****FIG. 2C****FIG. 2D**

FIG. 3

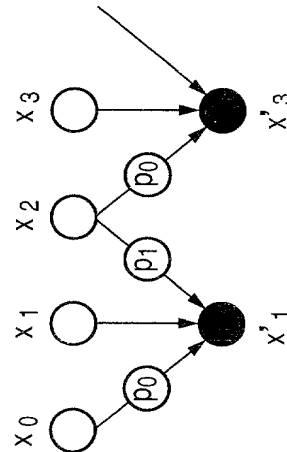


$$X = (x_0, x_1, x_2, x_3, x_4, \dots)$$

$$X_e = (x_0, x_2, x_4, \dots)$$

$$X_o = (x_1, x_3, x_5, \dots)$$

$$X'_o = X_o + pX_e$$



$$X'_e = X_e + uX'_o$$

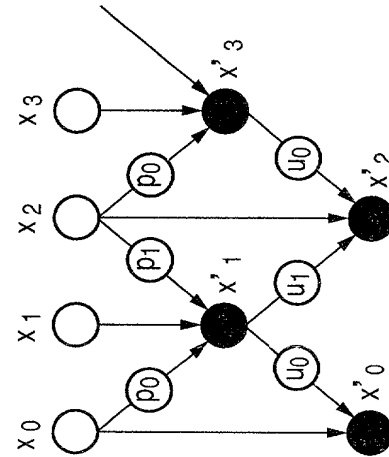
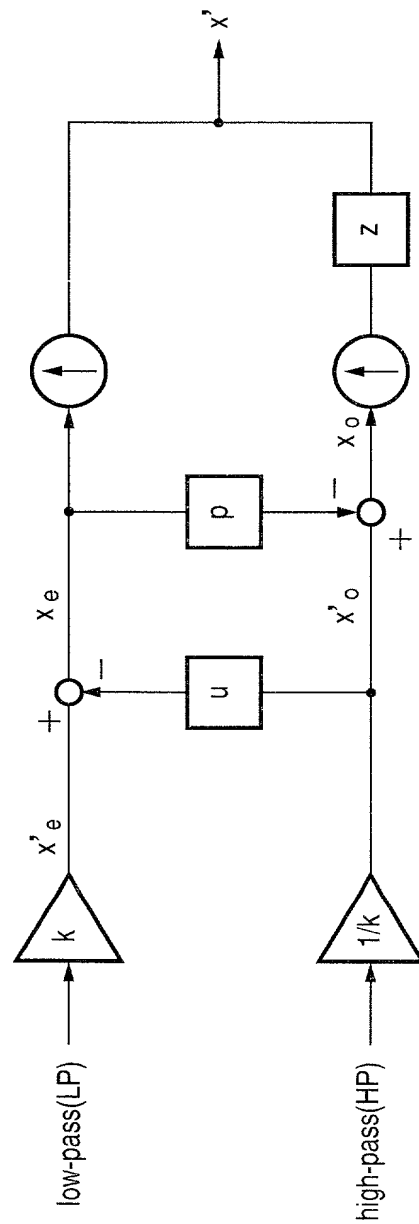
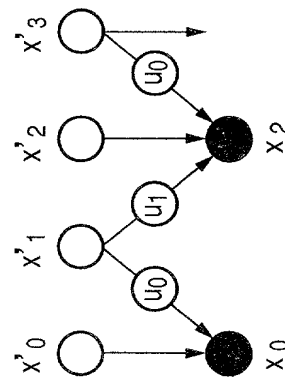
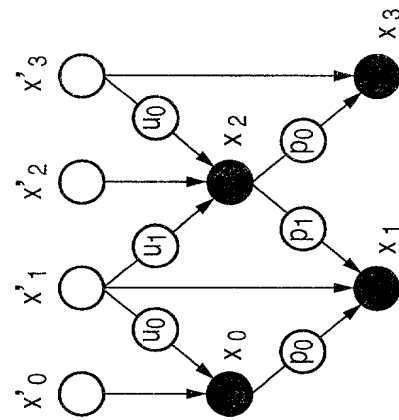


FIG. 4

$$X_e = X_e - uX_o$$



$$X_0 = X_0 - pX_e$$



$$X_e = (x_0, x_2, x_4 \dots)$$

$$X_0 = (x_1, x_3, x_5, \dots)$$



$$X = (x_0, x_1, x_2, x_3, x_4, \dots)$$

FIG. 5

Filter	Filter coefficients	
	FORWARD DIRECTION	REVERSE DIRECTION
5×3 filter	$H0 = [-1, 2, 6, 2, -1] / 8$ $H1 = [-1, 2, -1] / 2$	$G0 = [1, 2, 1] / 2$ $G1 = [-1, -2, 6, -2, -1] / 8$

FIG. 6

Filter	Lifting coefficients	
	FORWARD DIRECTION	REVERSE DIRECTION
5×3 filter	$p = (-1, -1) / 2$ $u = (1, 1) / 4$	$p = (-1, -1) / 2$ $u = (1, 1) / 4$

FIG. 7

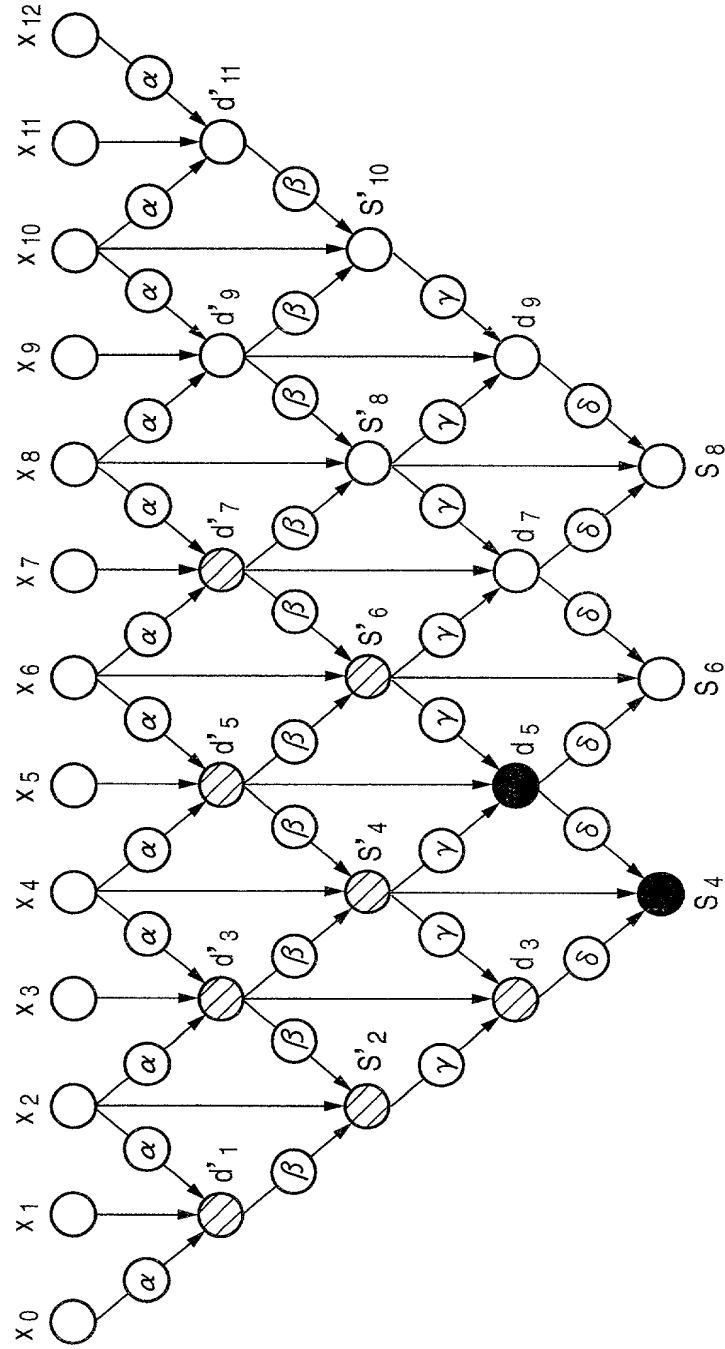


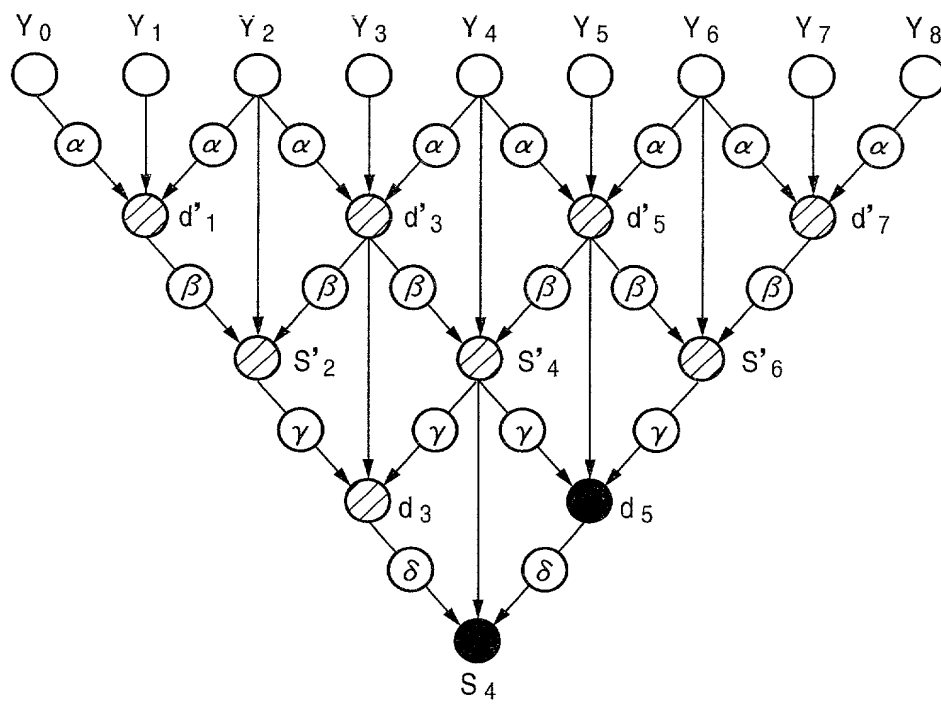
FIG. 8

FIG. 9

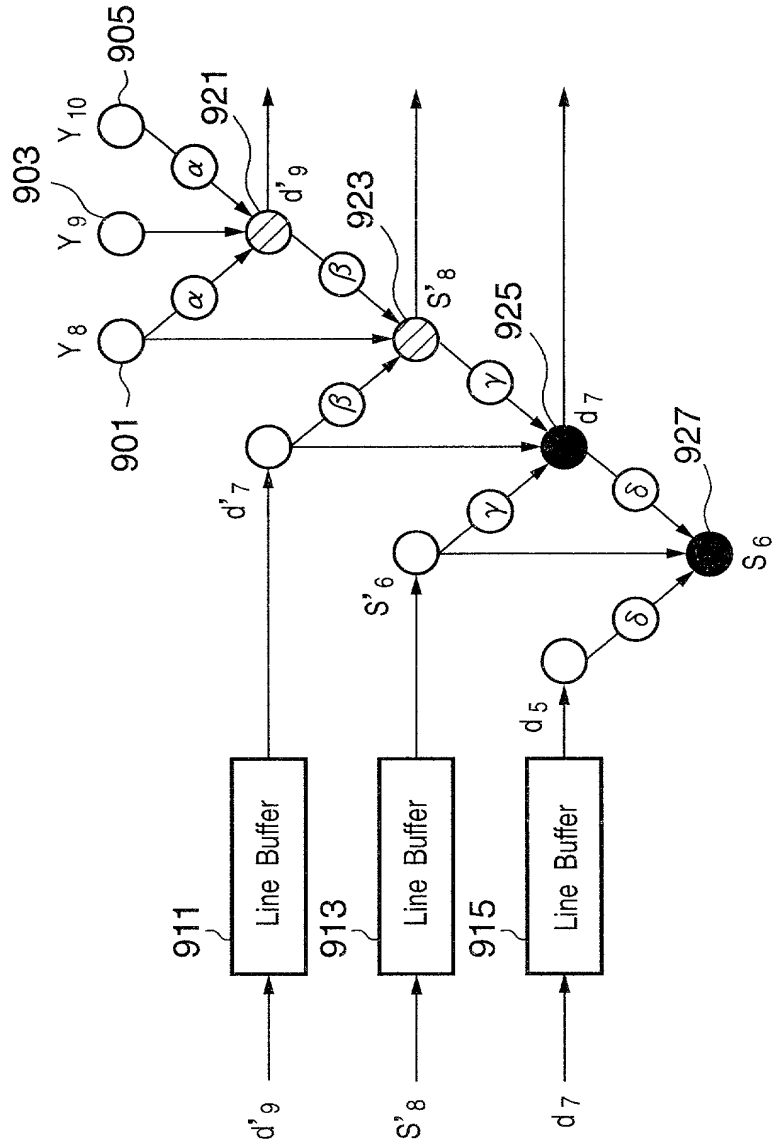


FIG. 10

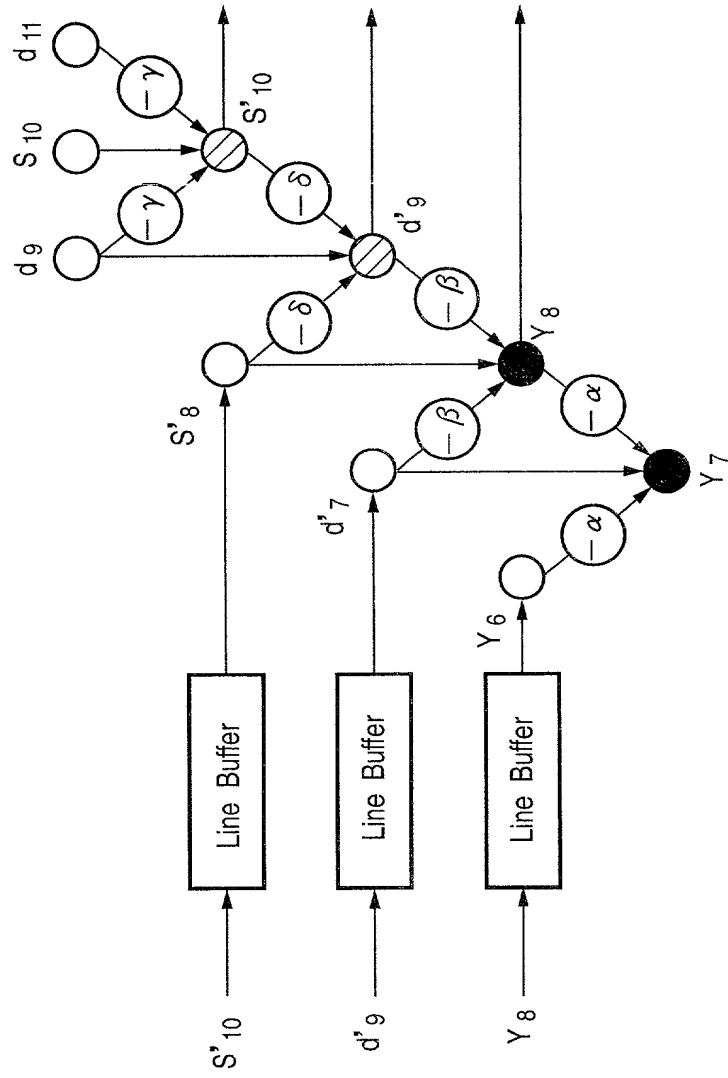


FIG. 11

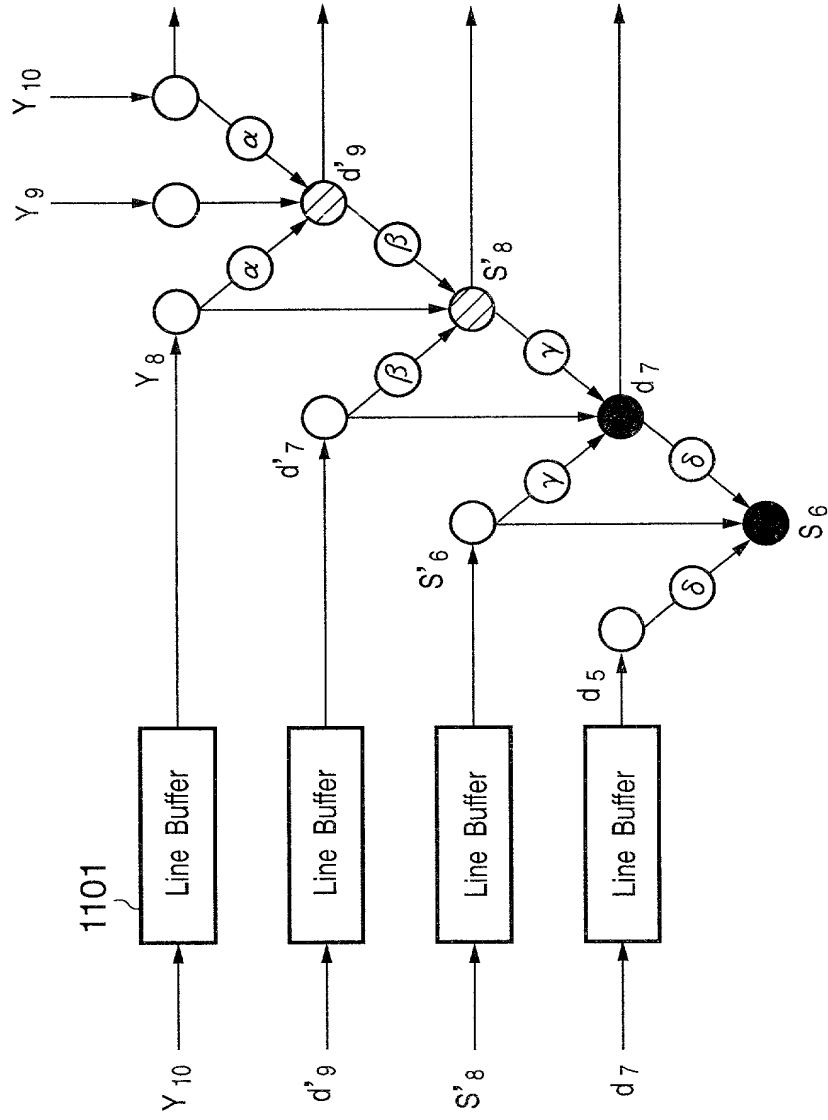


FIG. 12

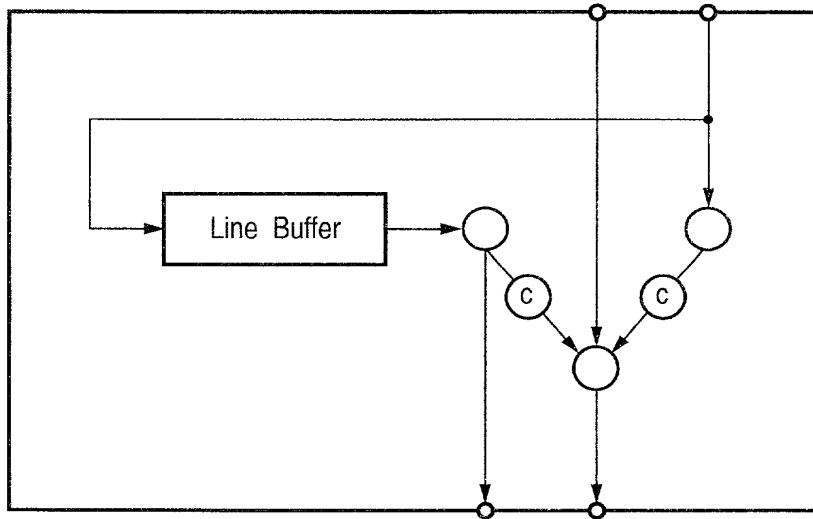
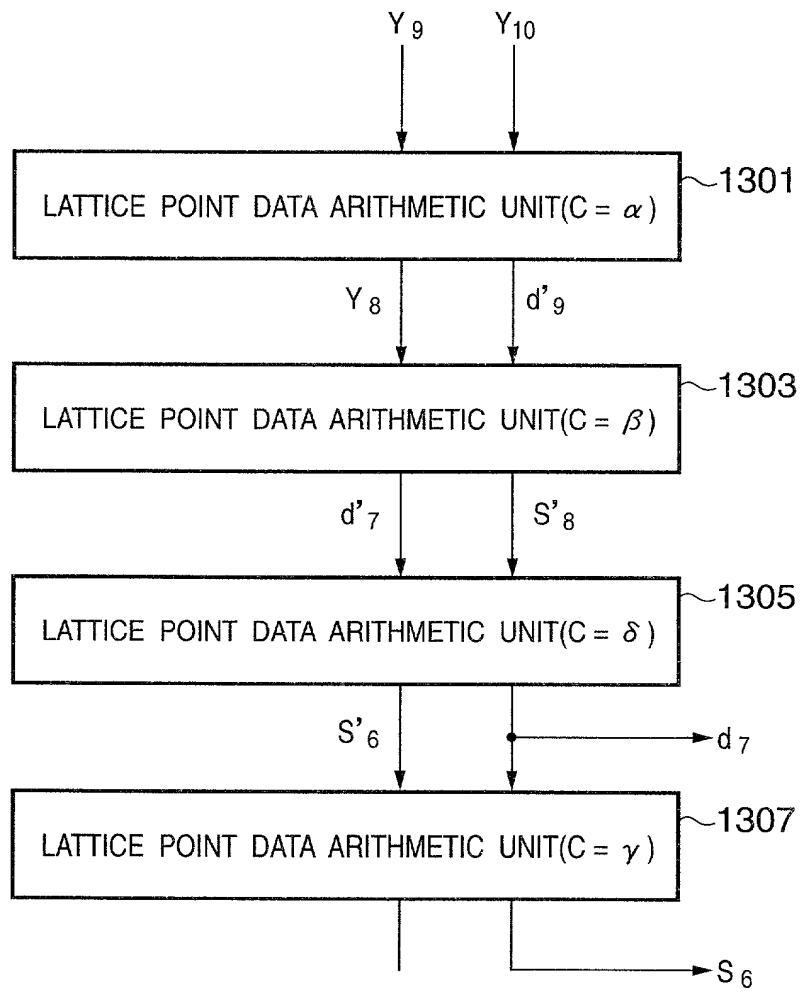


FIG. 13



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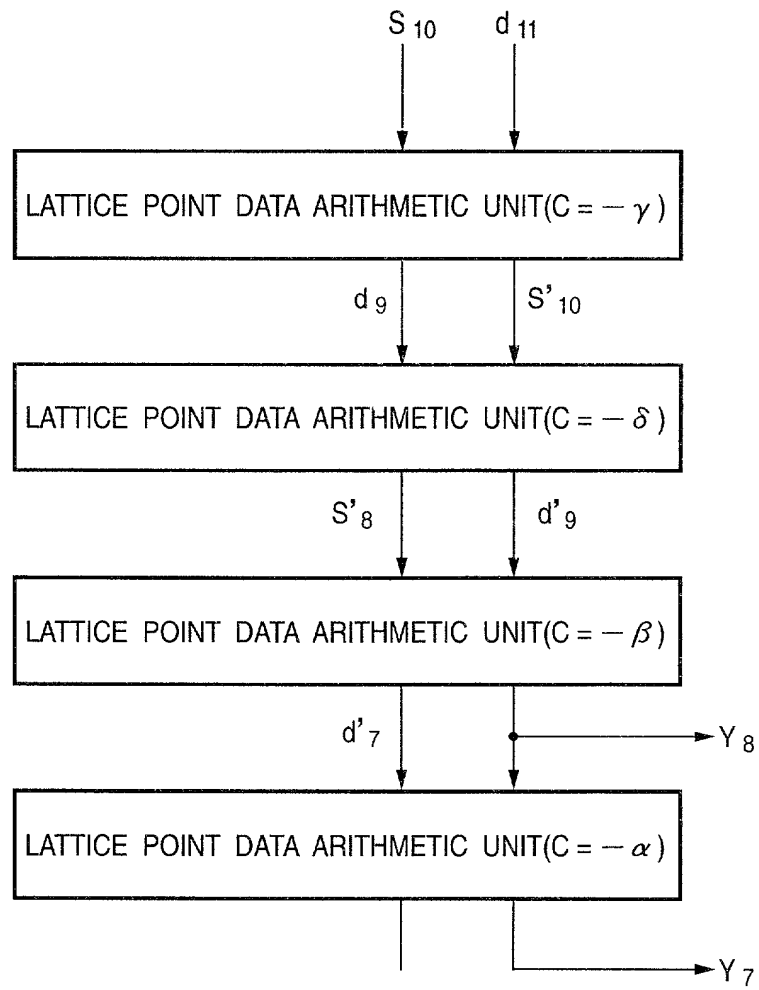
FIG. 14

FIG. 16

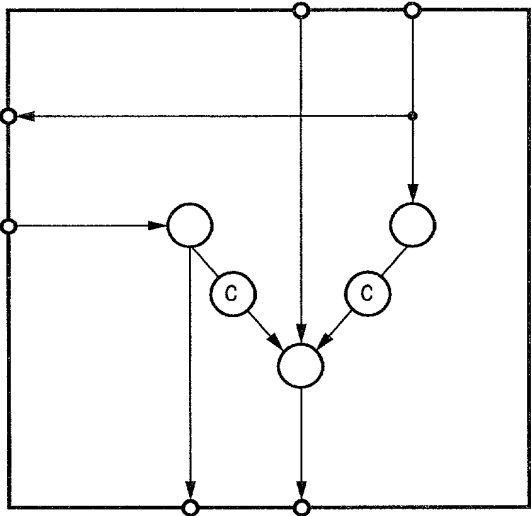


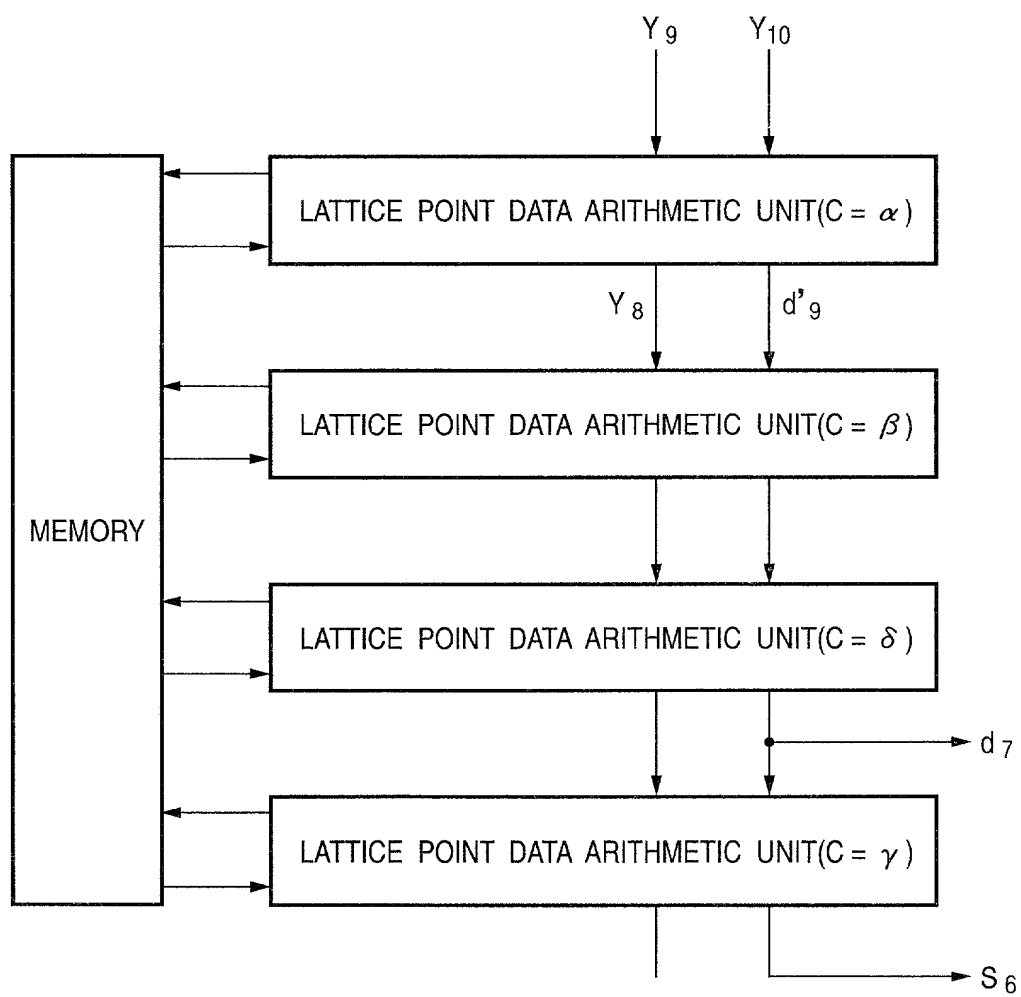
FIG. 17

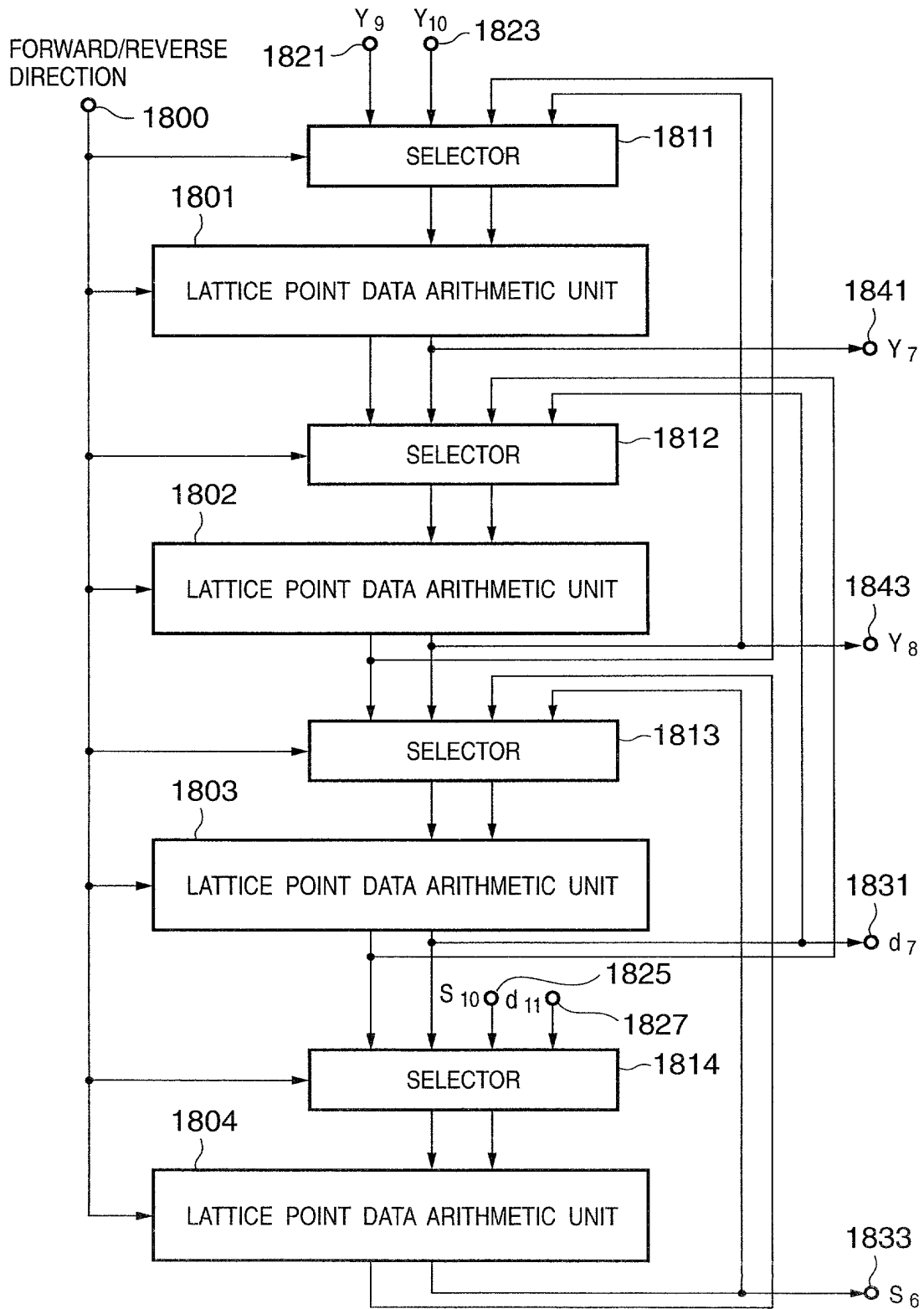
FIG. 18

FIG. 19

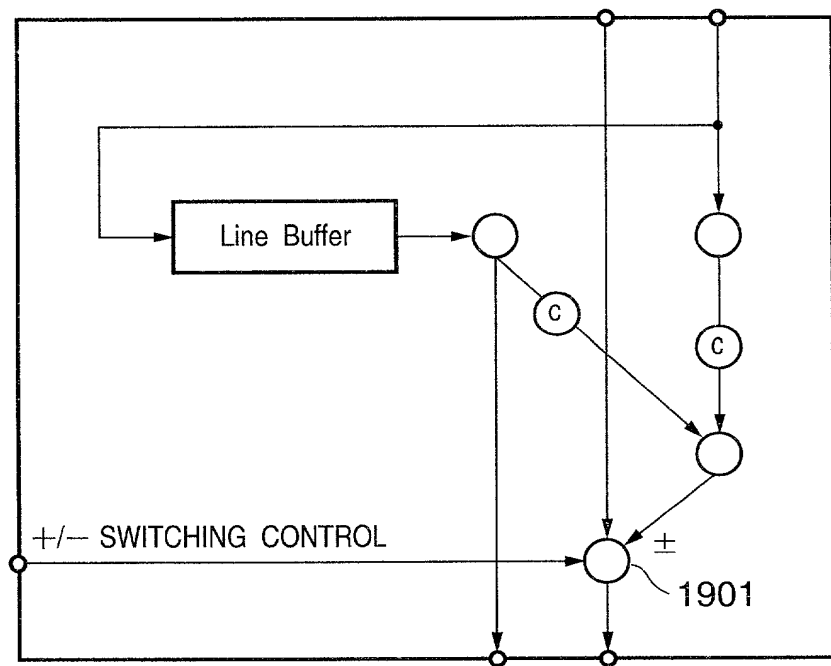


FIG. 20A

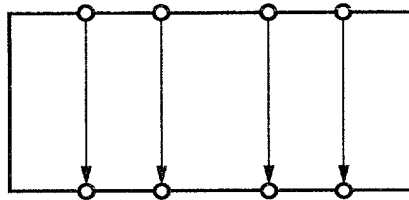


FIG. 20B

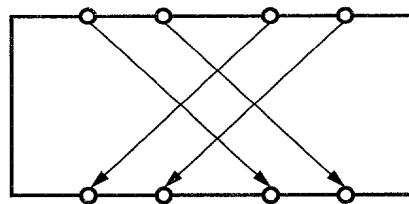


FIG. 21

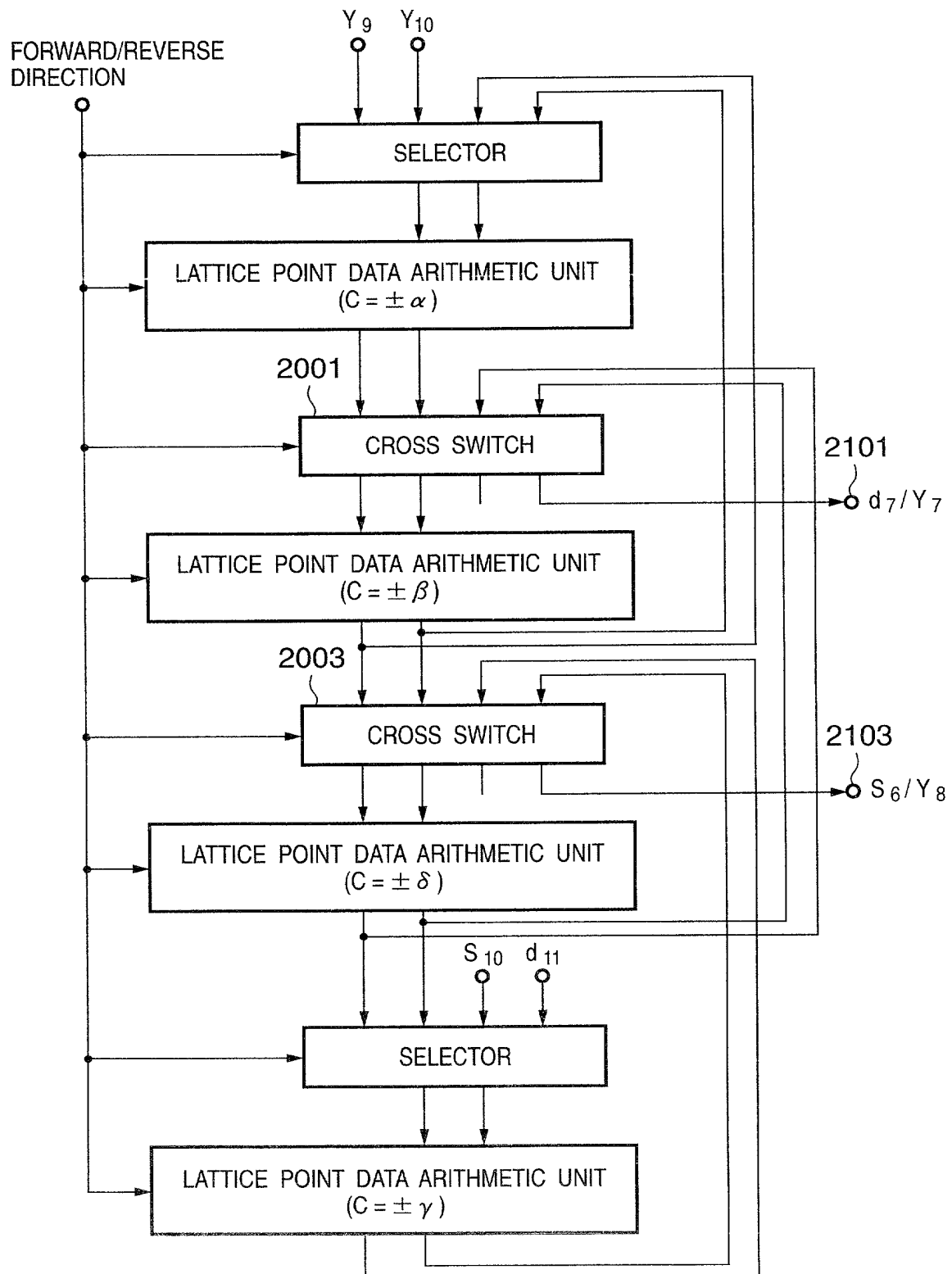
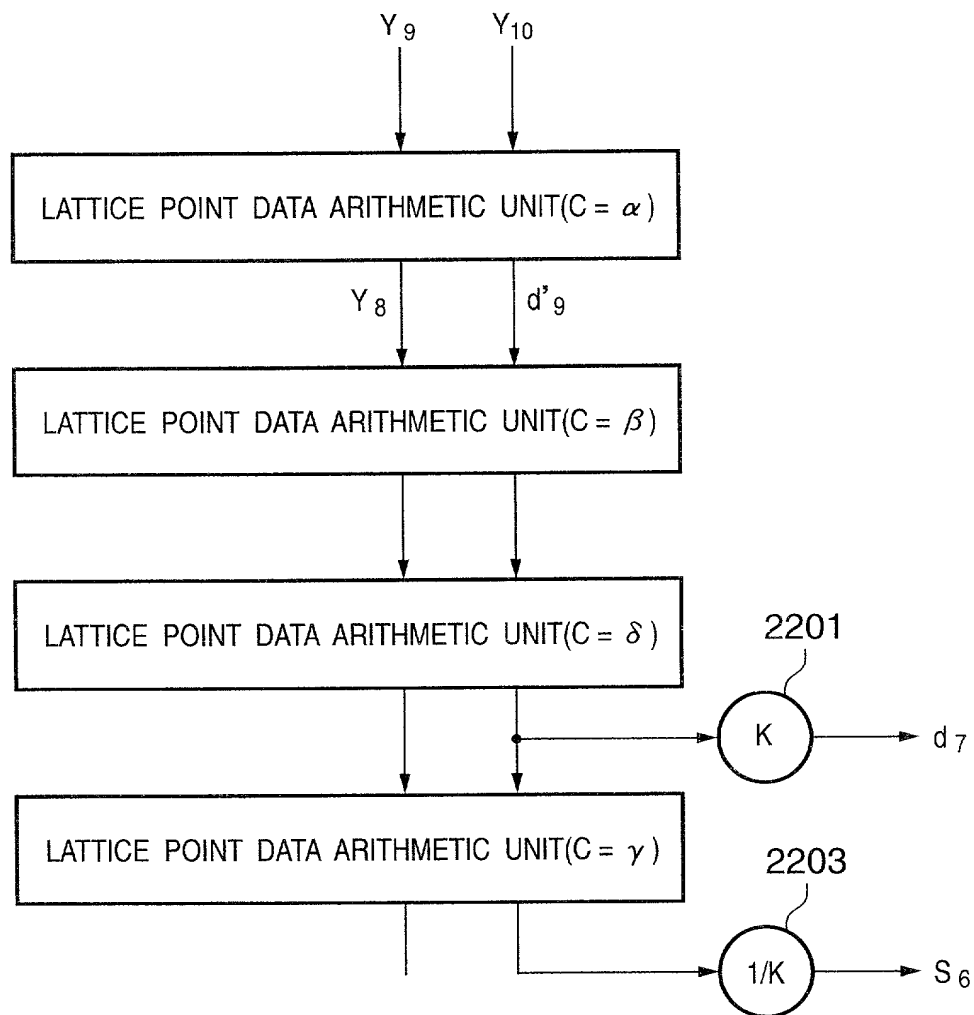
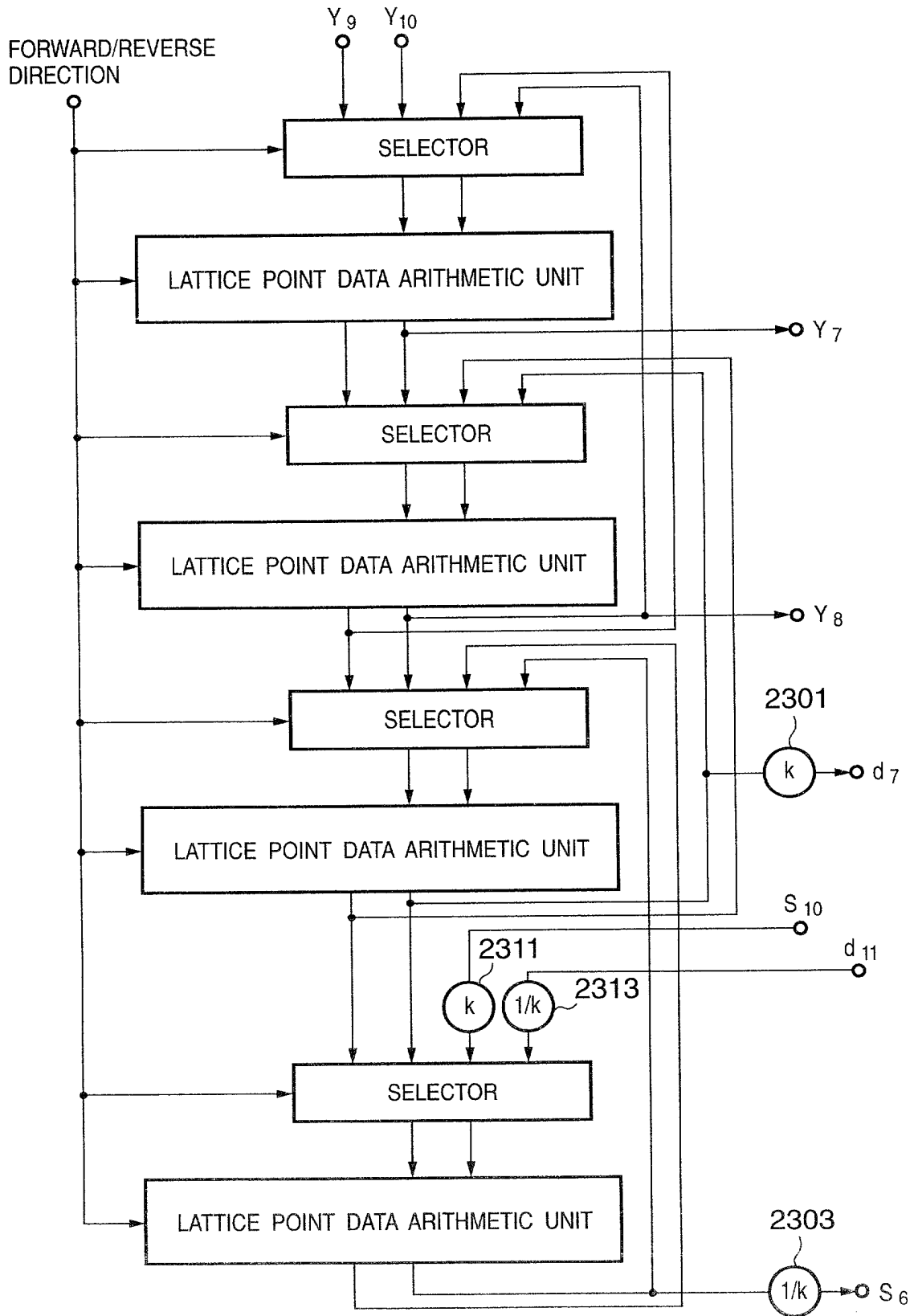


FIG. 22

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FIG. 23



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FIG. 24

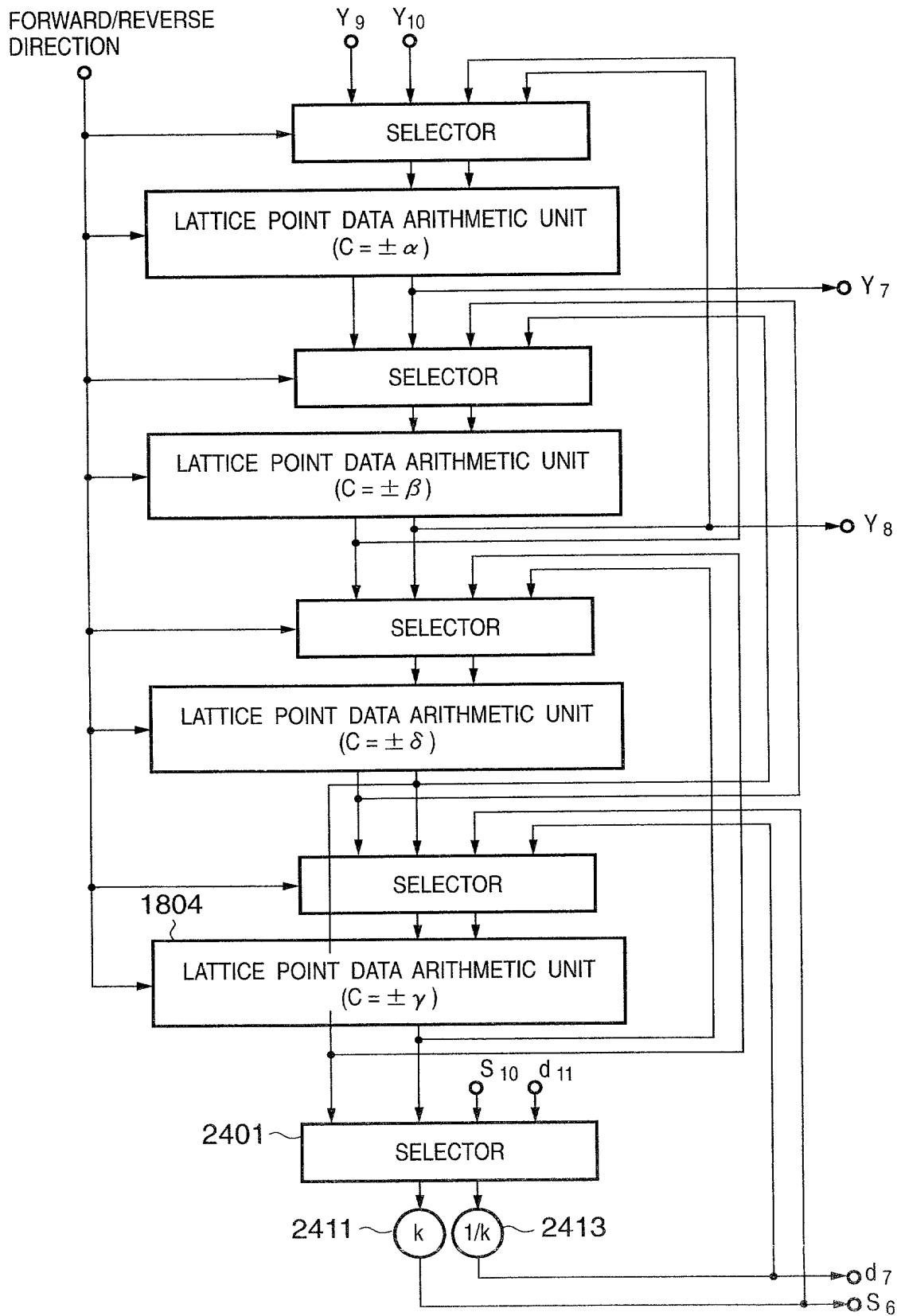


FIG. 25

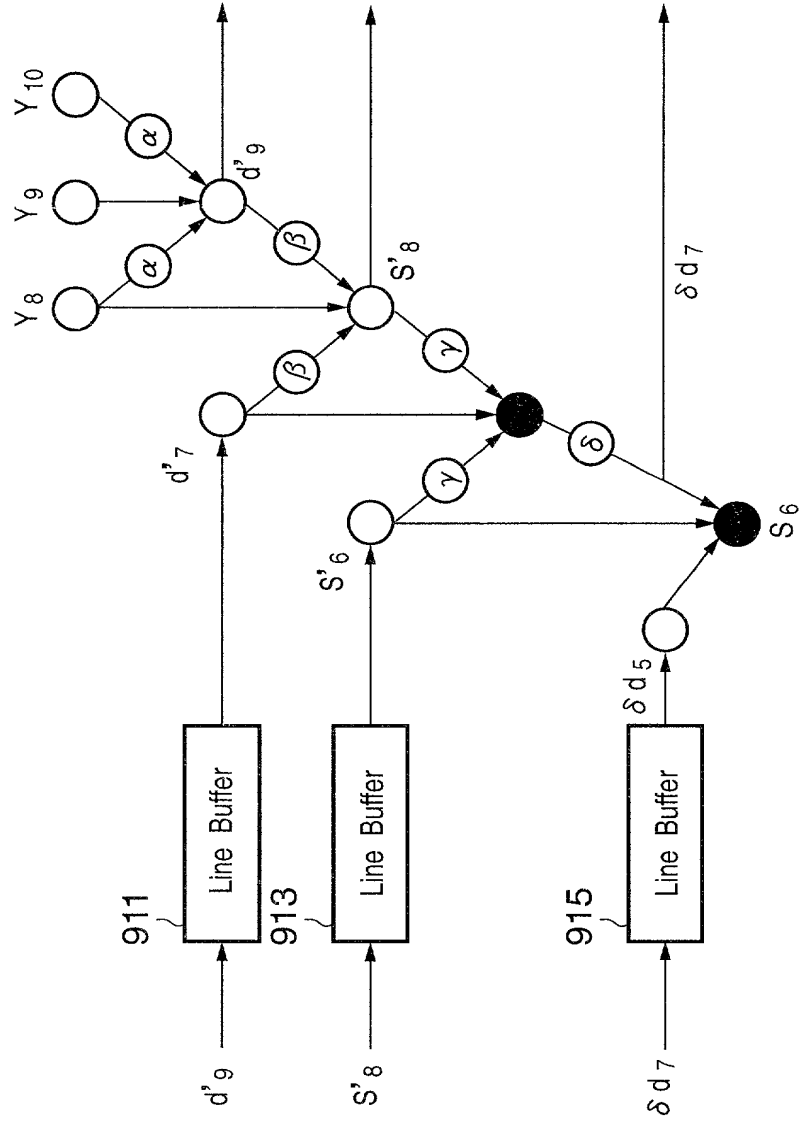


FIG. 26

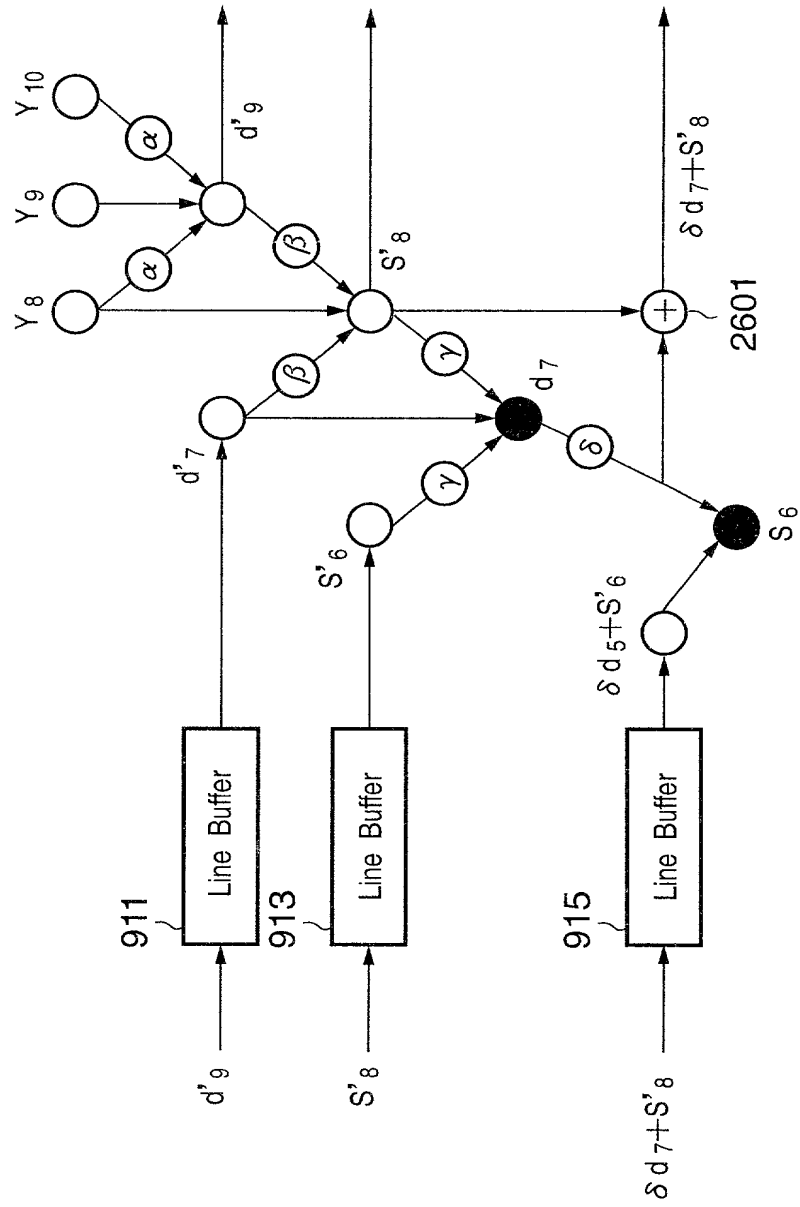


FIG. 27

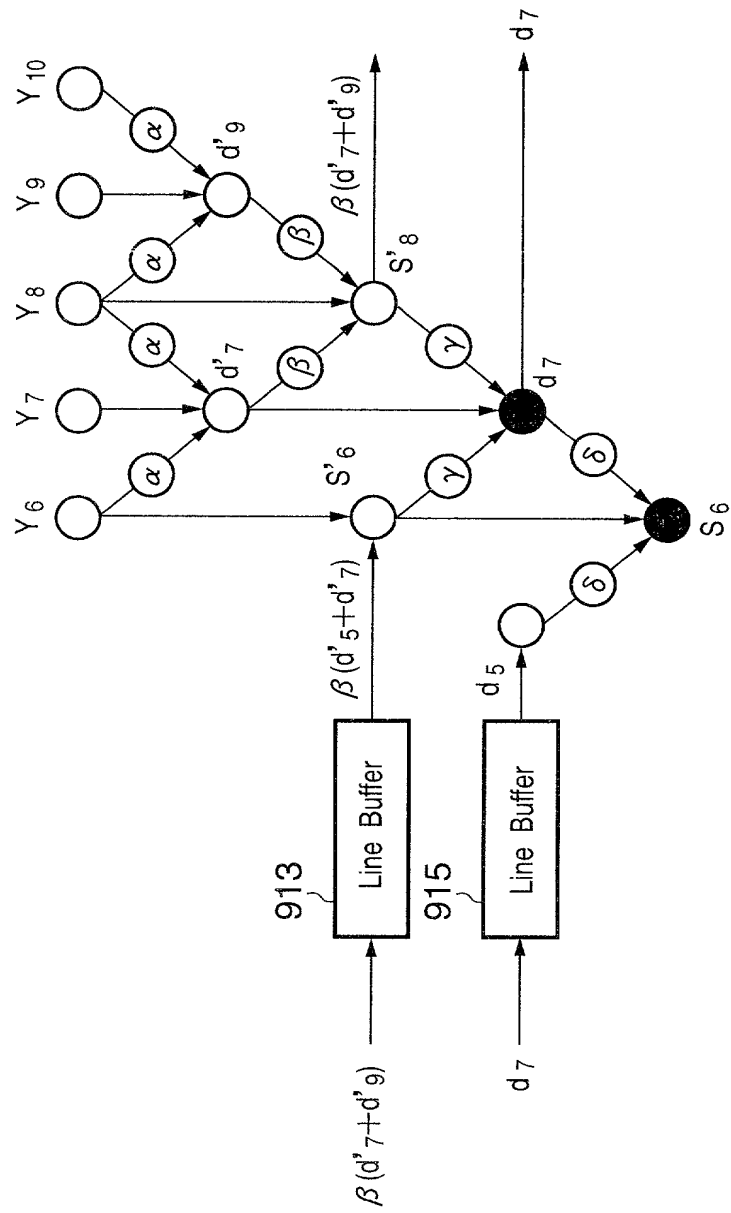


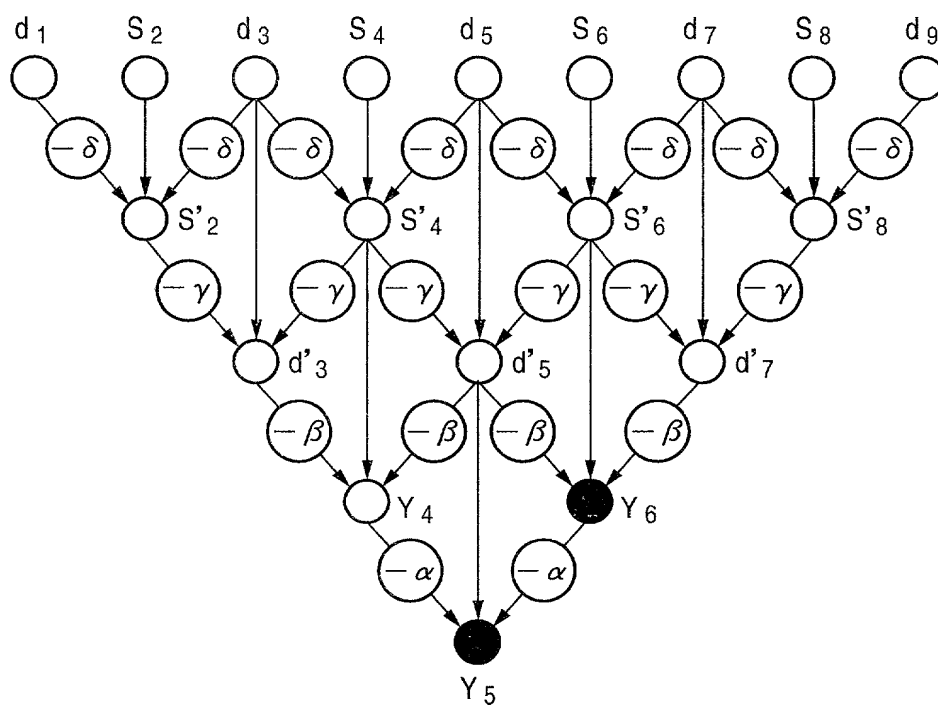
FIG. 28

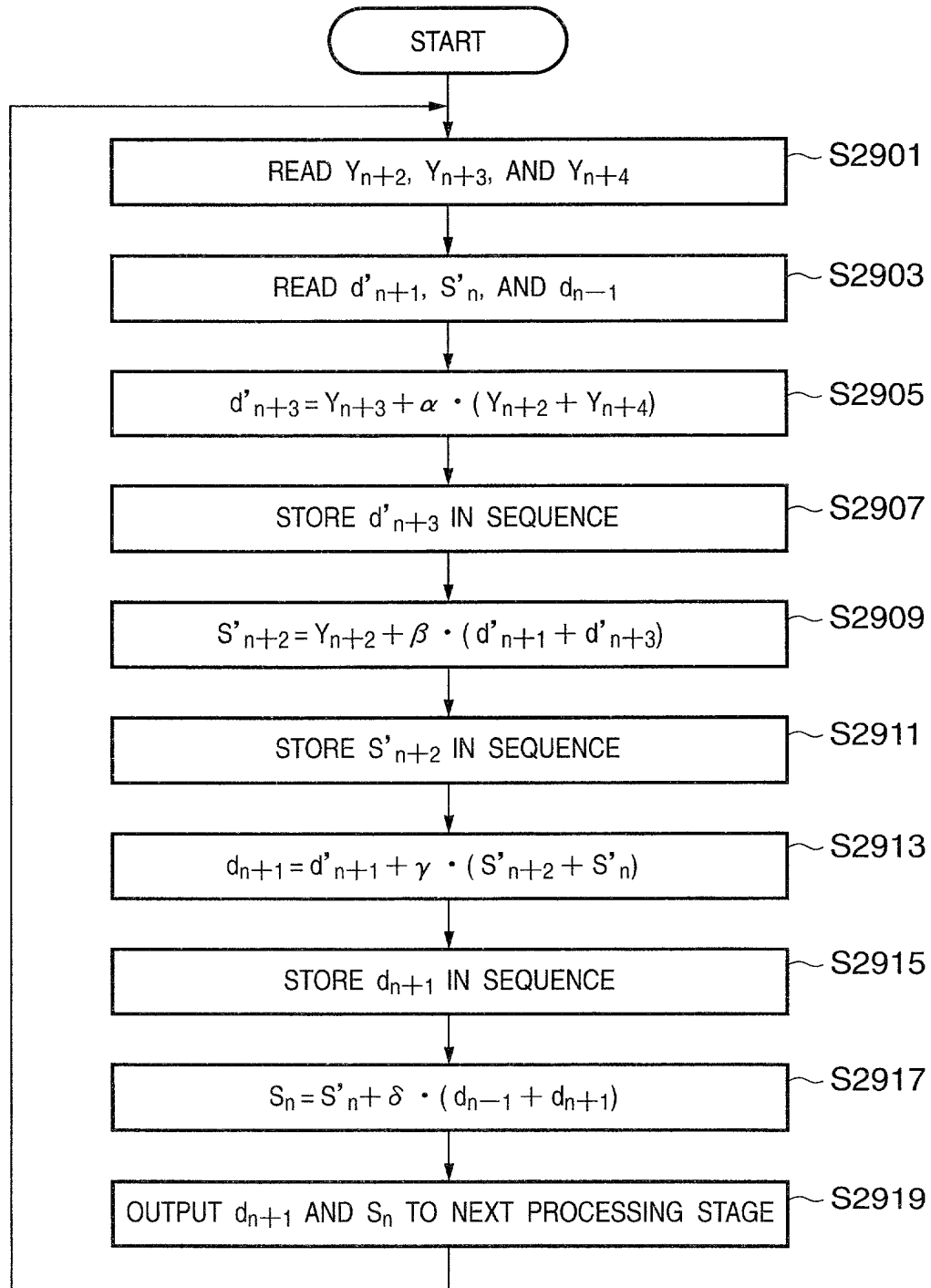
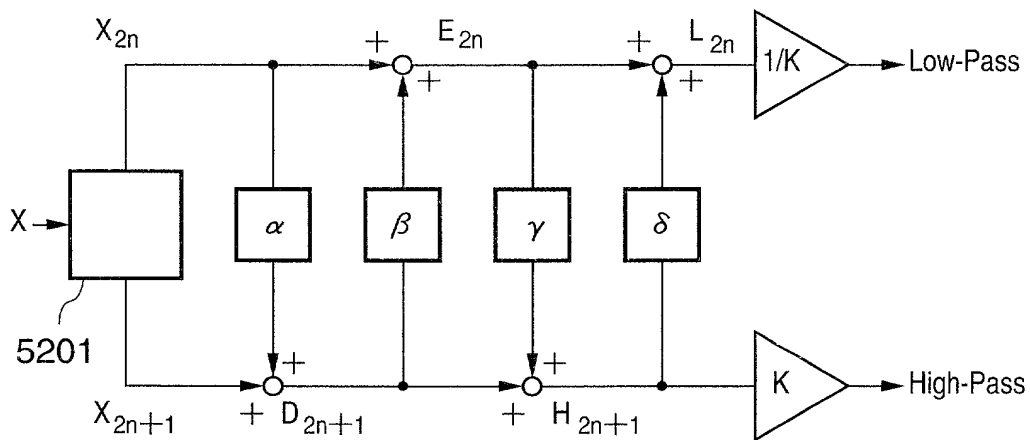
FIG. 29

FIG. 30



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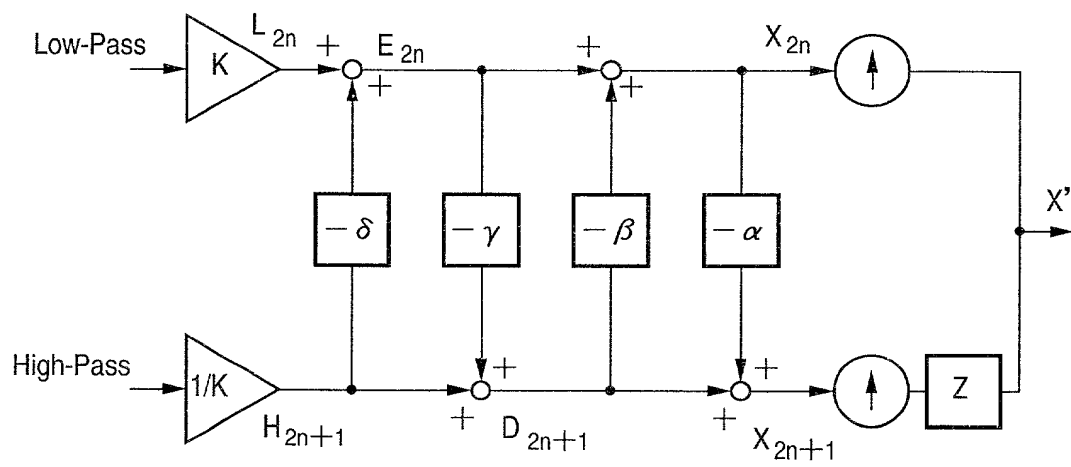


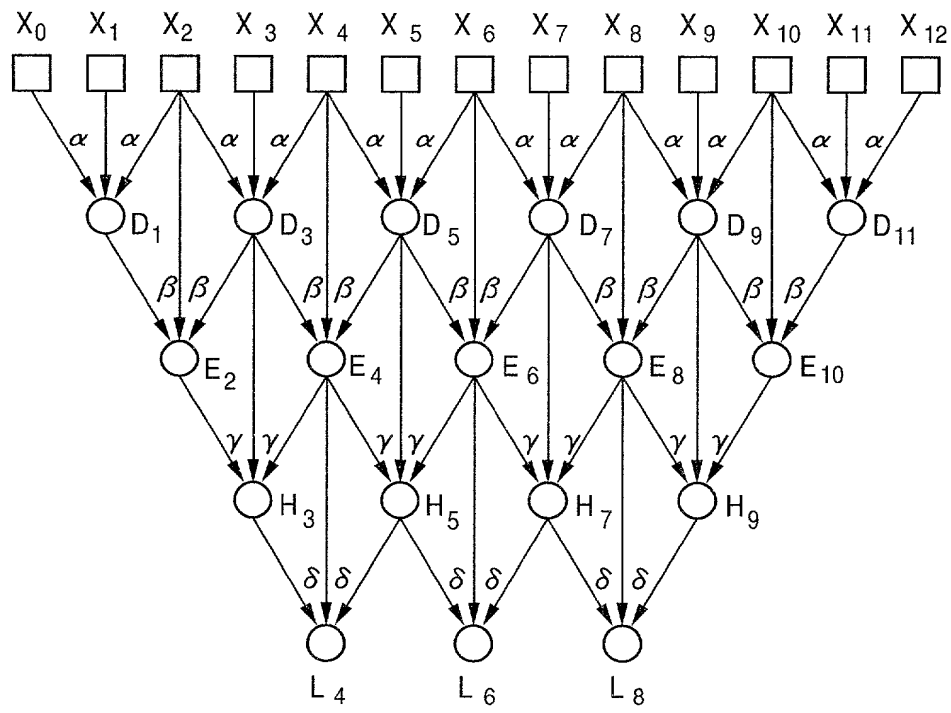
FIG. 32

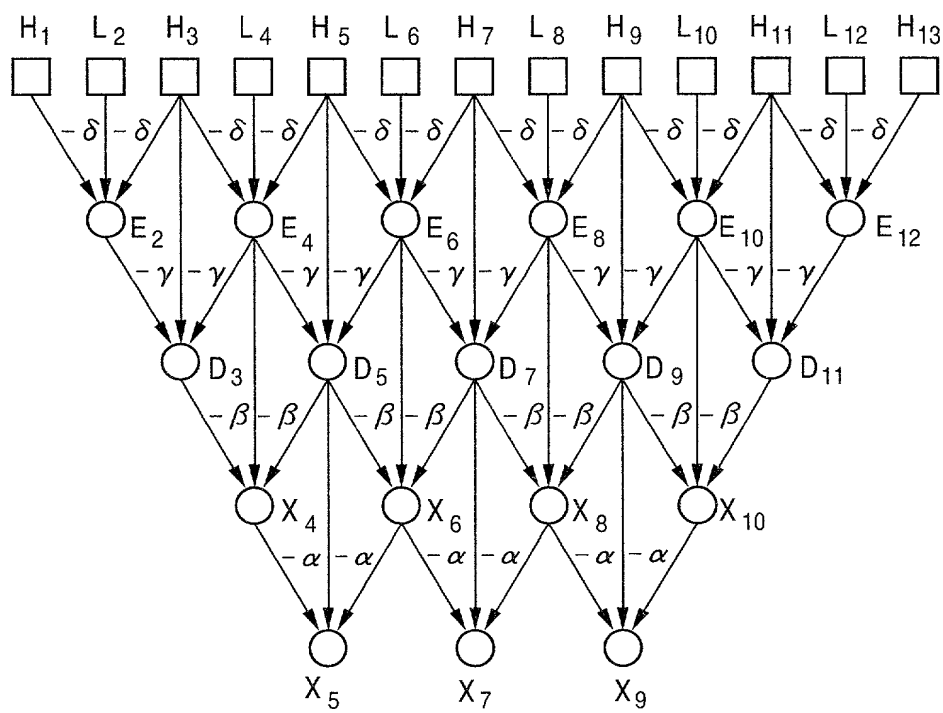
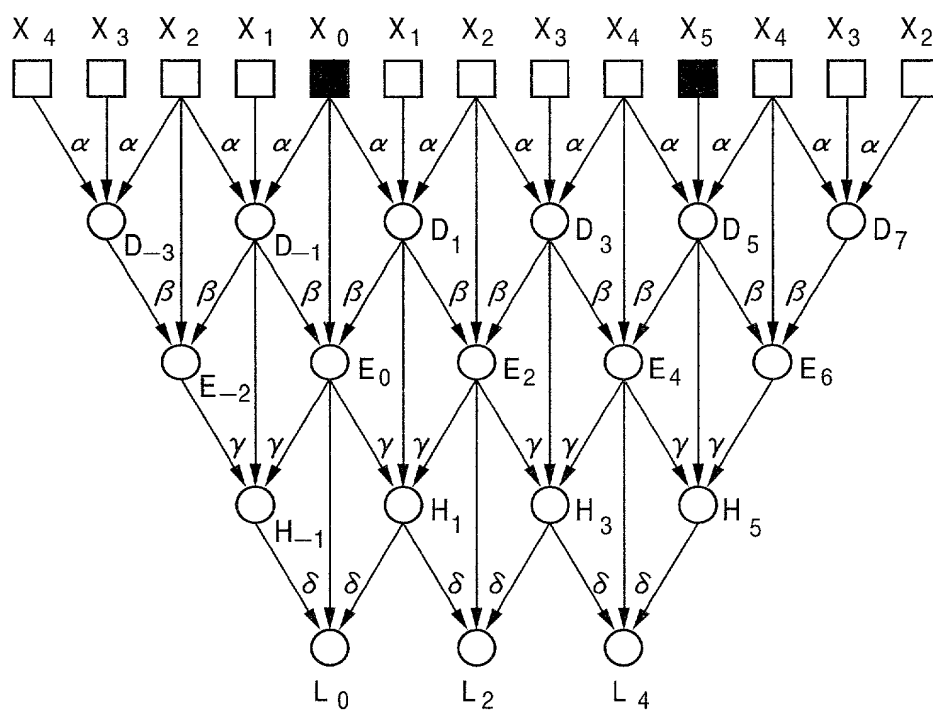
FIG. 33

FIG. 34

The diagram shows a circuit with three input lines at the top labeled 5601, 5603, and 5605. Line 5601 connects to a first adder (5611) and a second adder (5615). Line 5603 connects to the second adder (5615). Line 5605 connects to a multiplier (5613) and the second adder (5615). The output of the first adder (5611) goes to the multiplier (5613). The output of the multiplier (5613) goes to the second adder (5615). The output of the second adder (5615) goes to an output line at the bottom labeled 5607.

FIG. 36

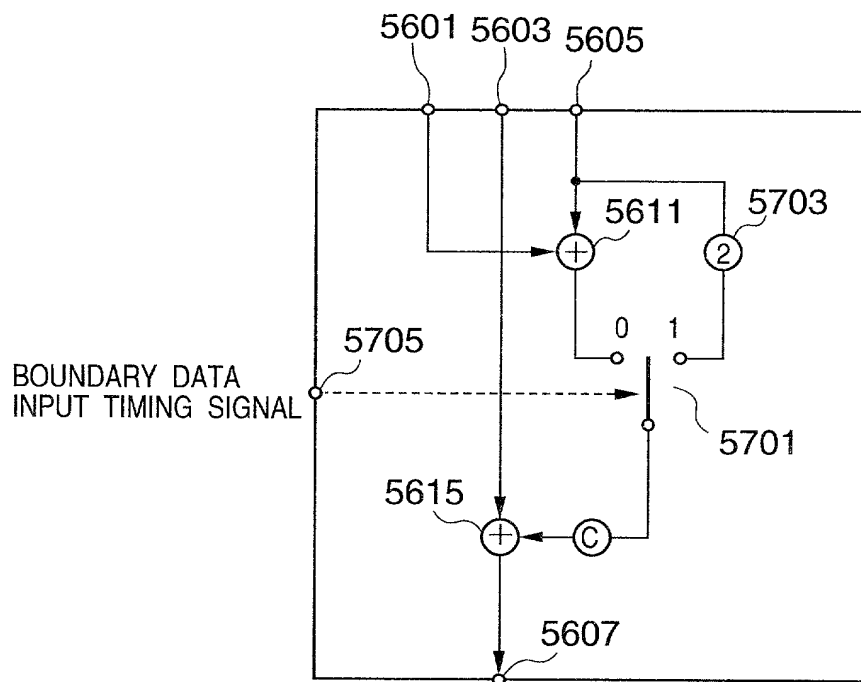


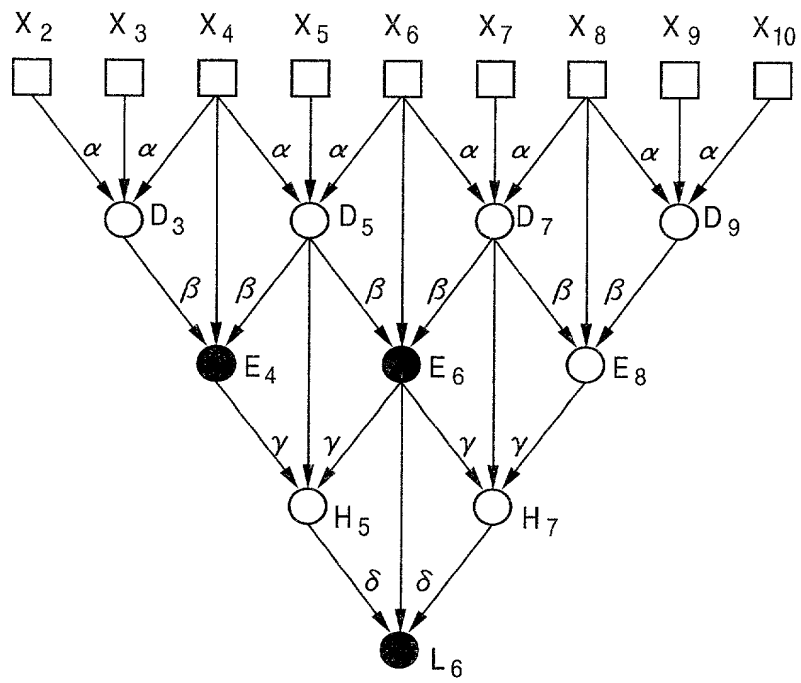
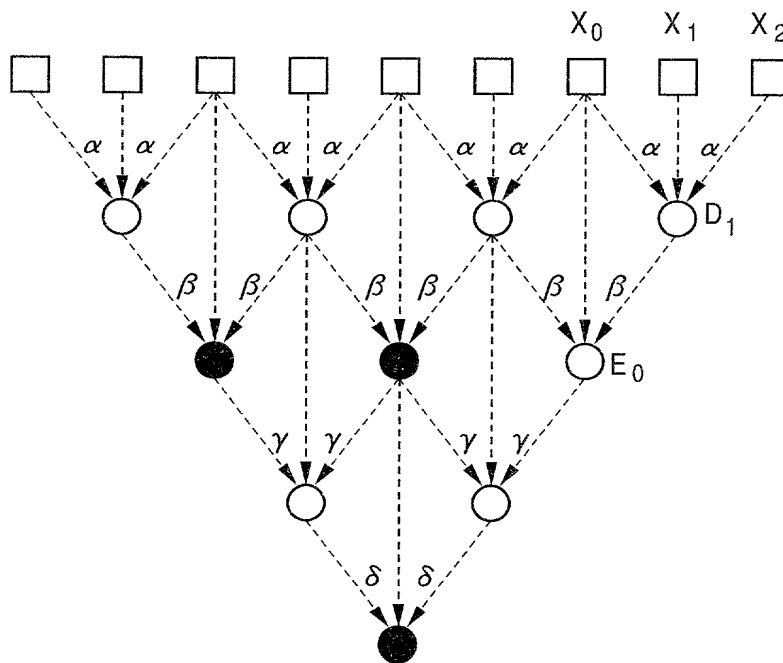
FIG. 37

FIG. 38

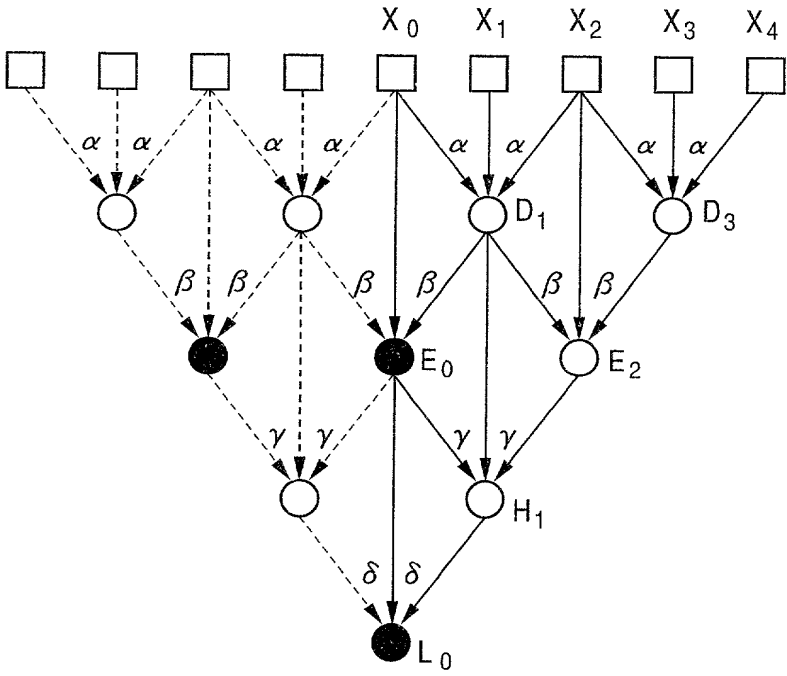


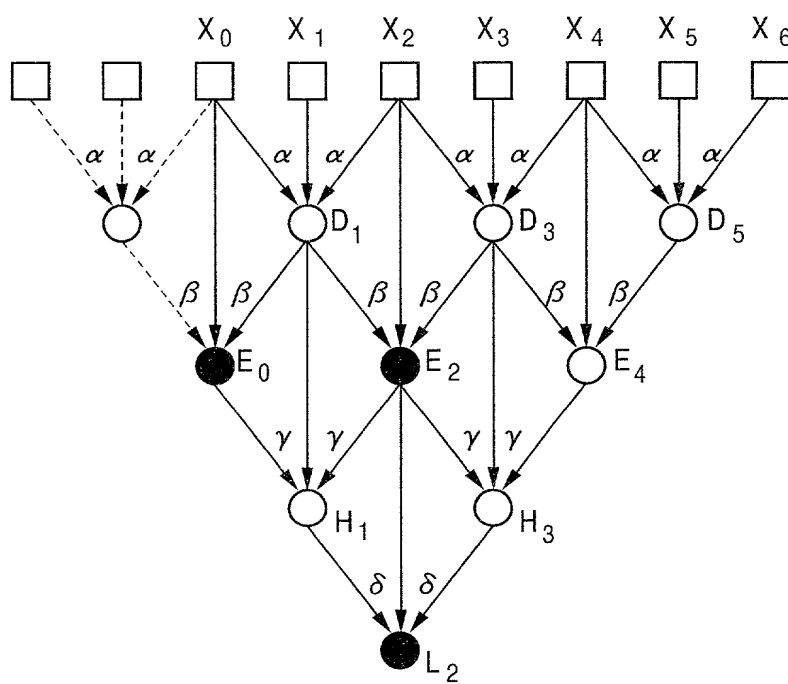
FIG. 40

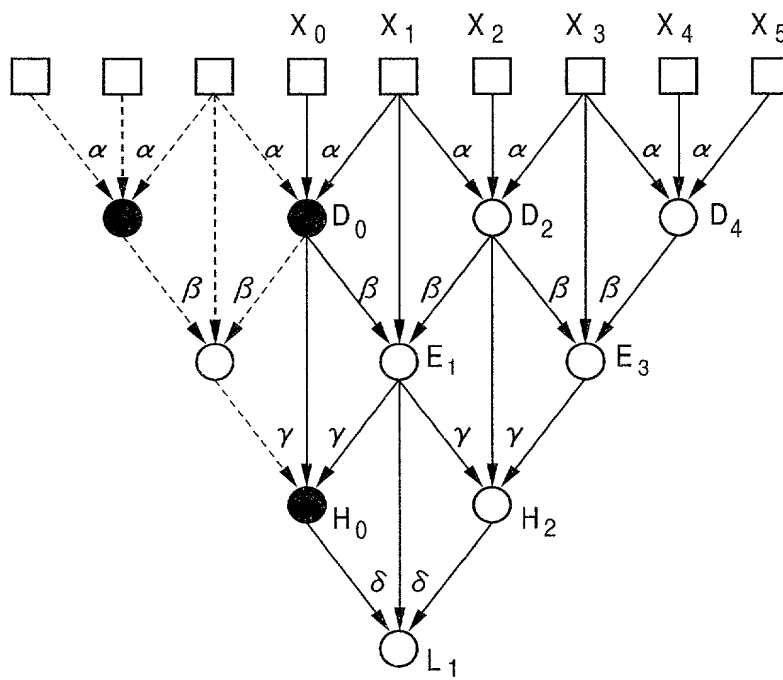
FIG. 41

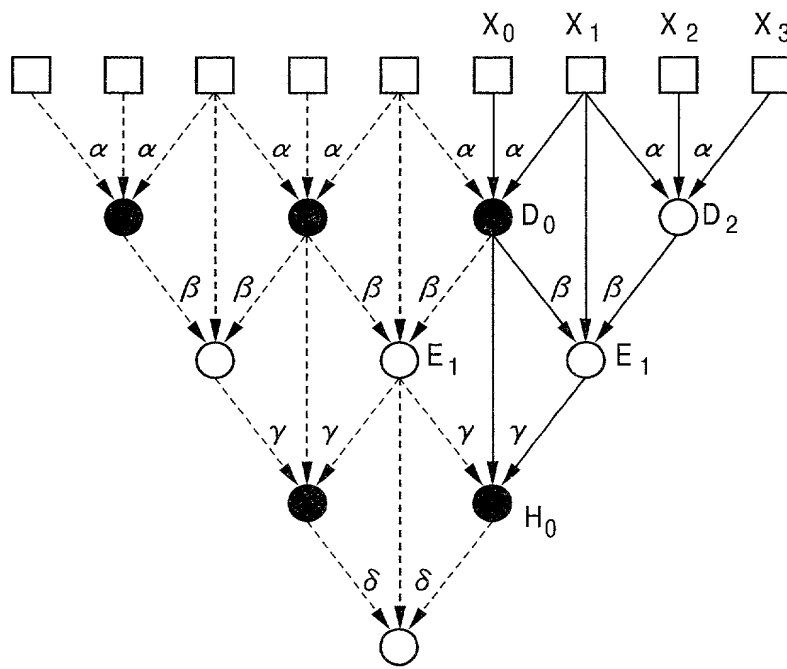
FIG. 42

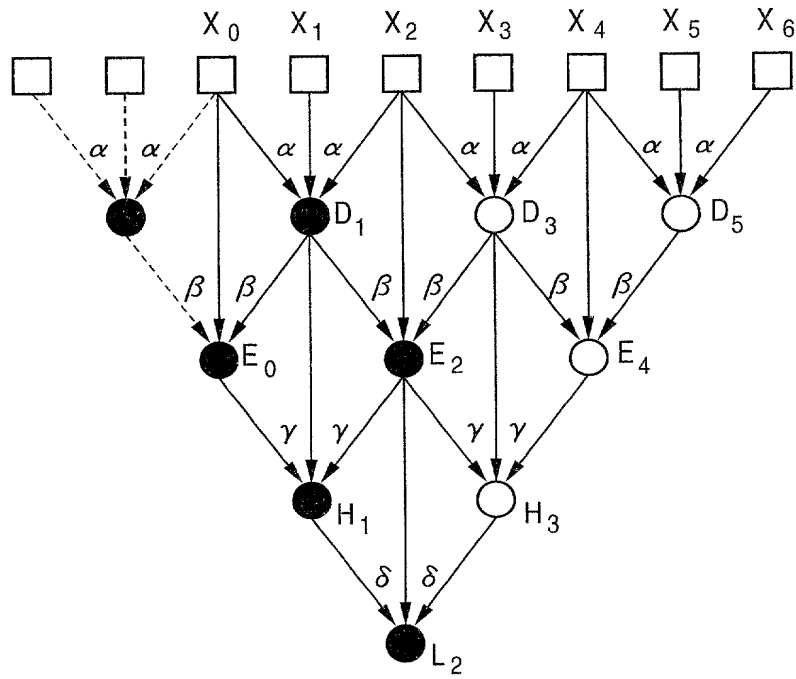
FIG. 43

FIG. 44

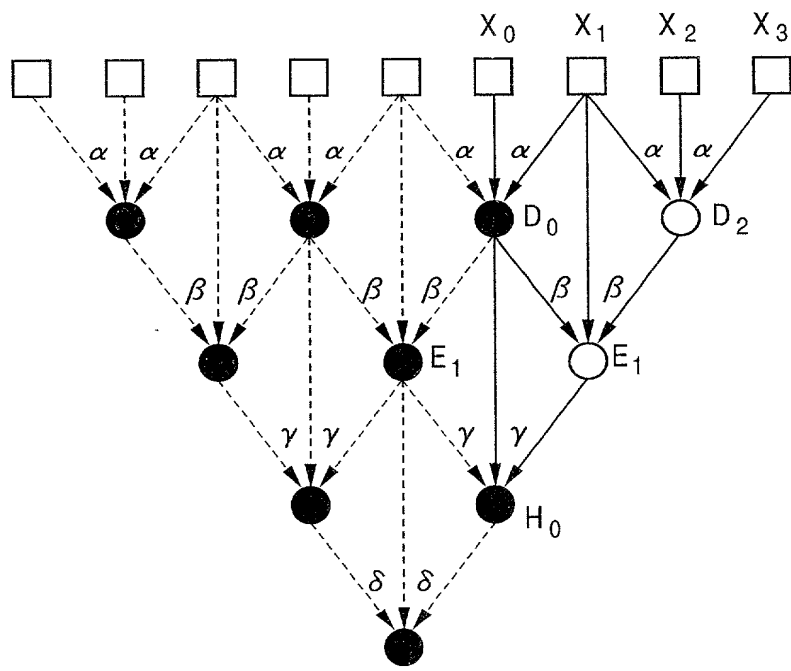


FIG. 45

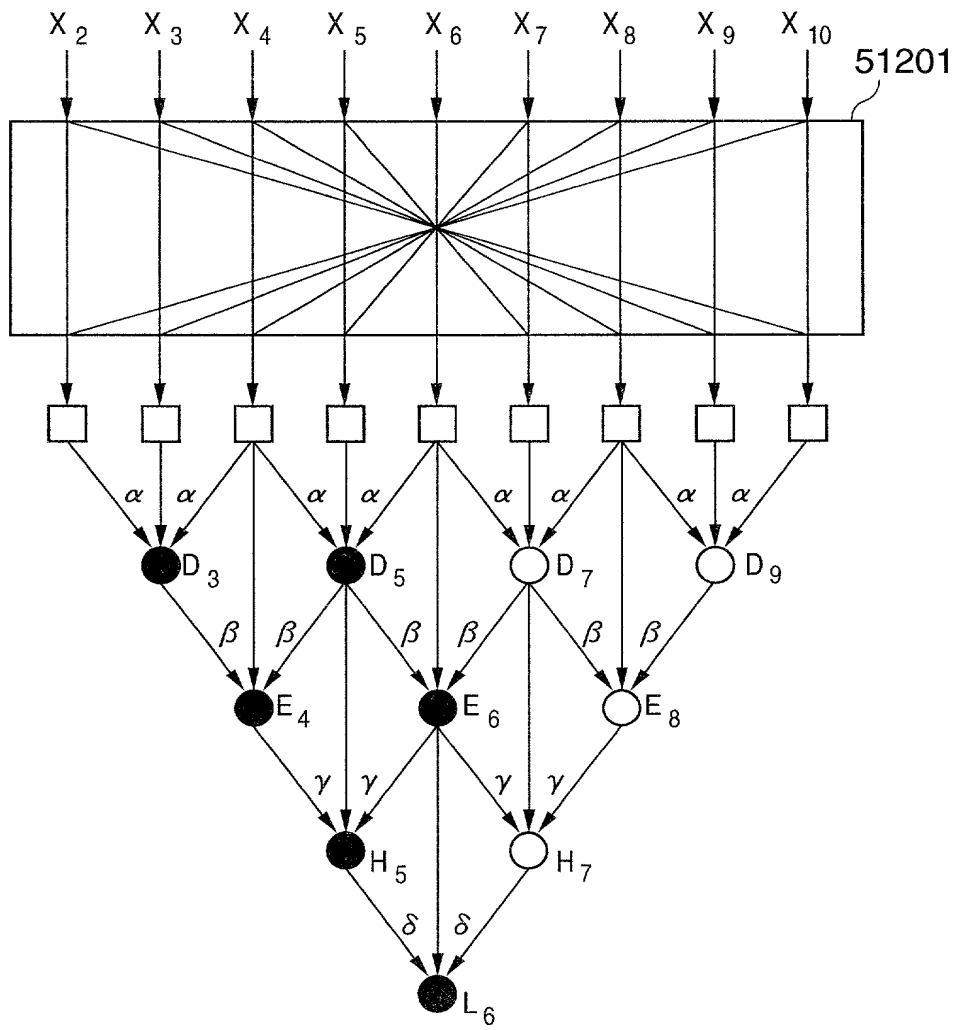


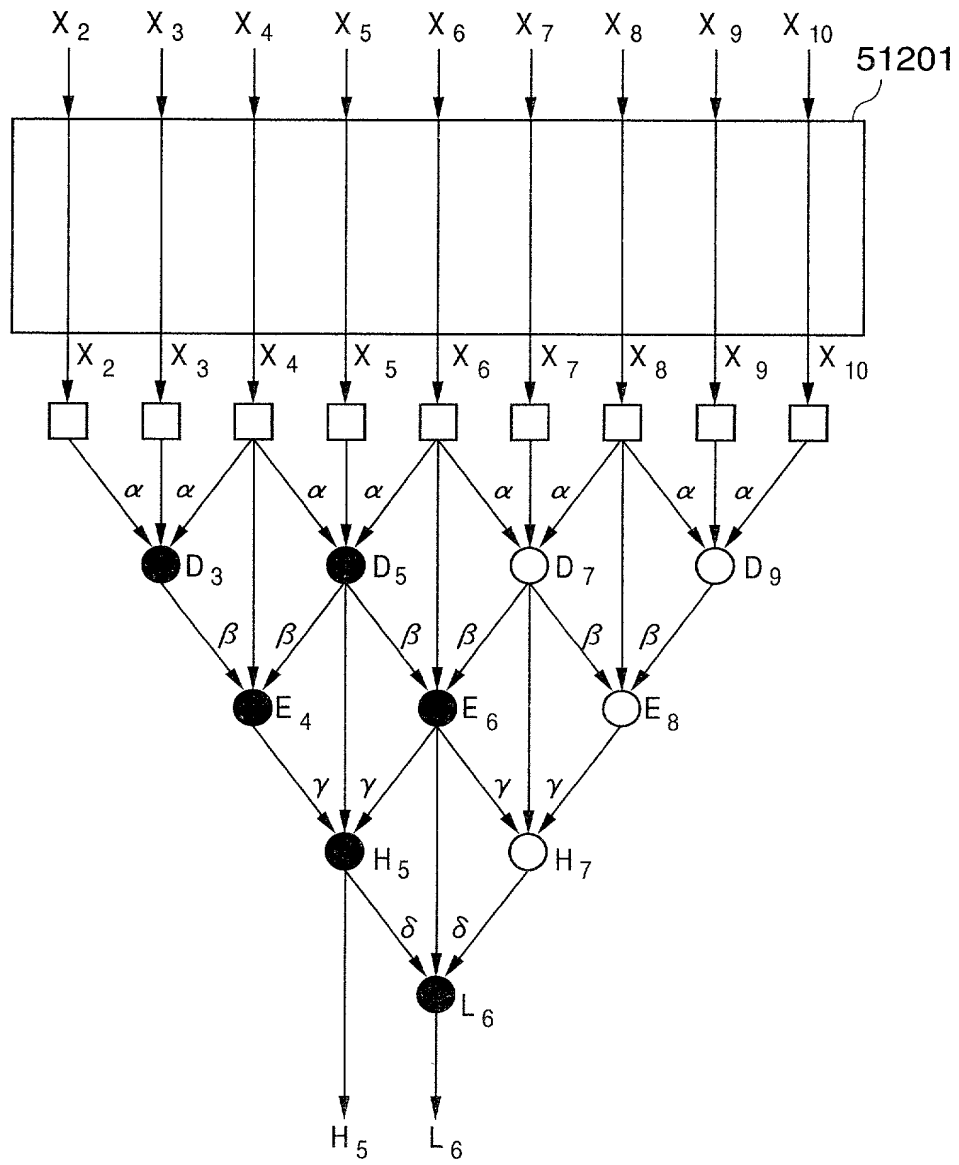
FIG. 46

FIG. 47

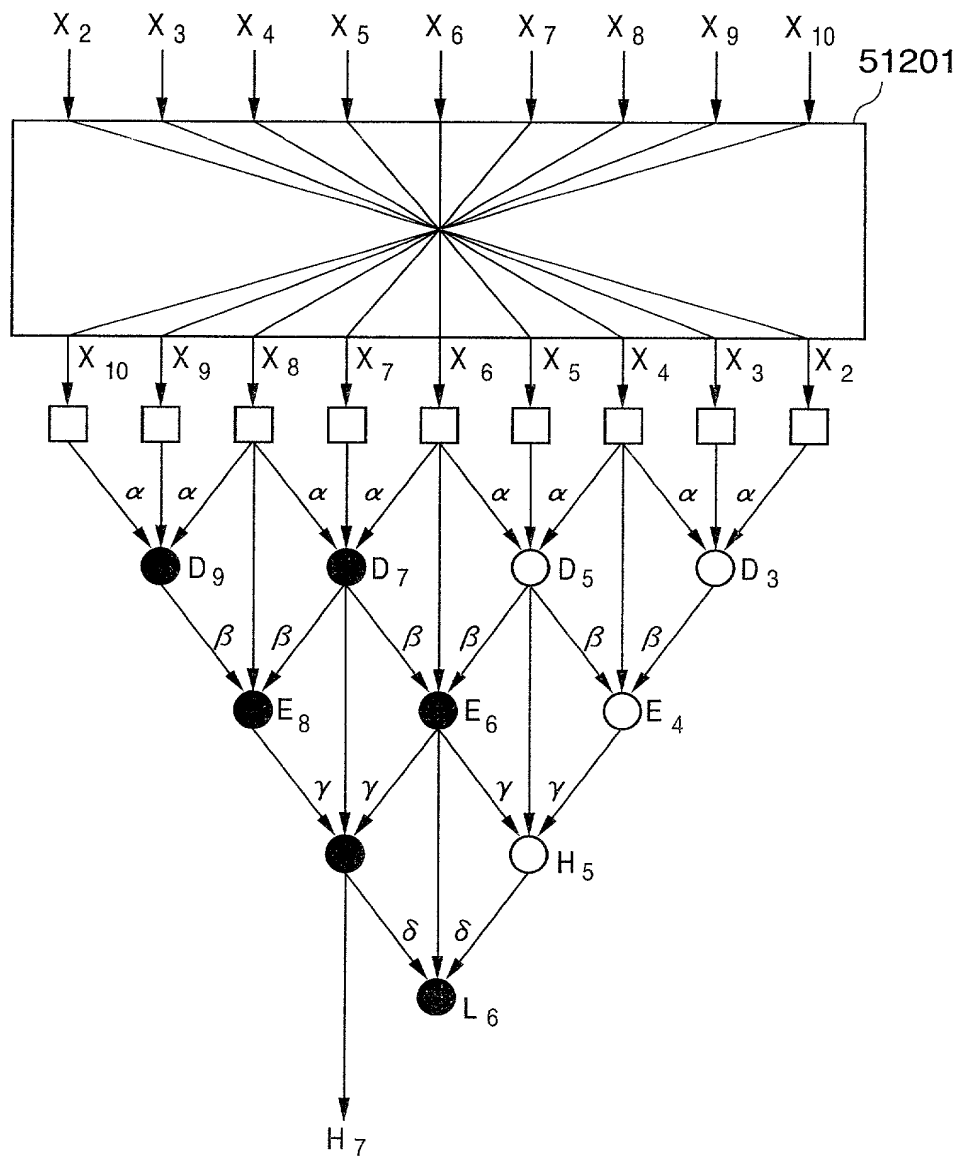


FIG. 48

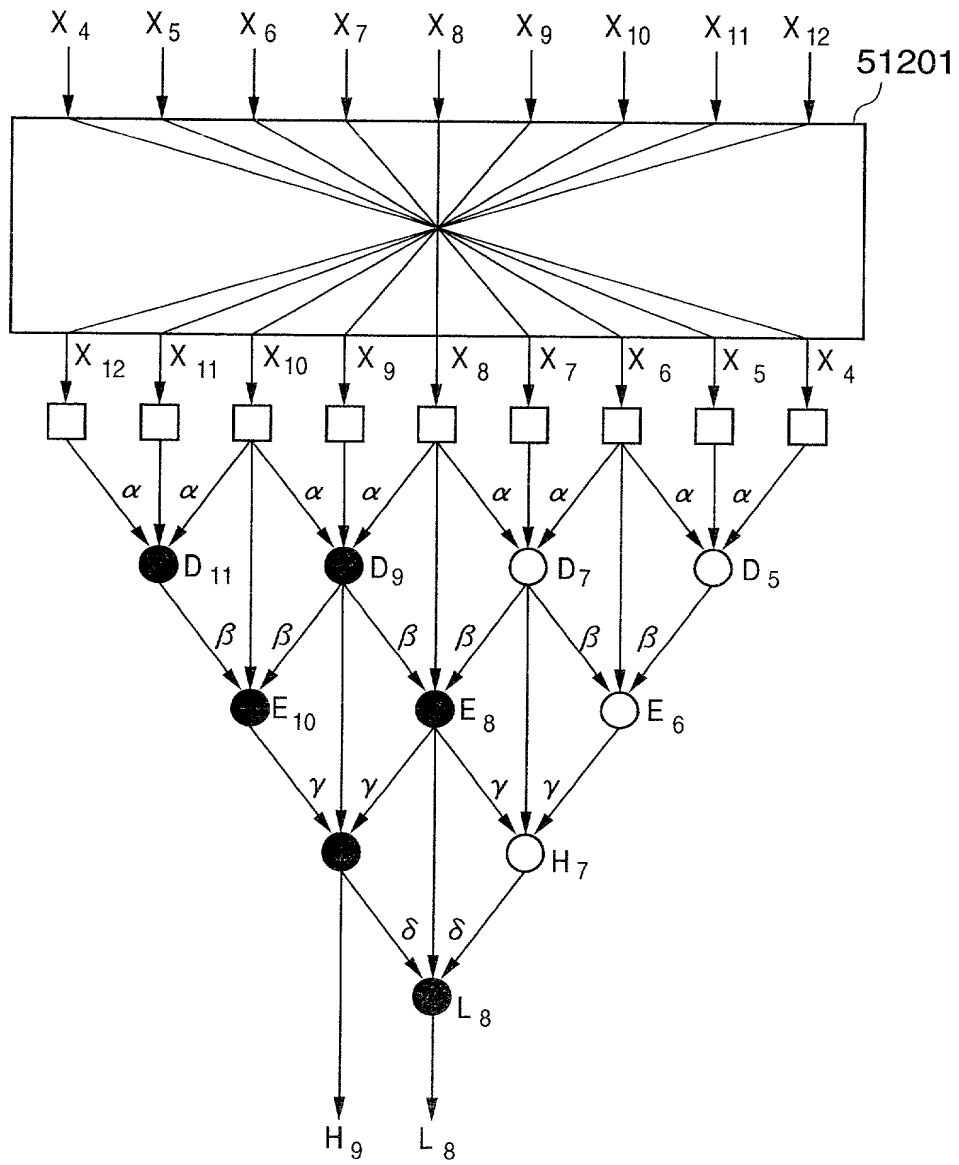


FIG. 49

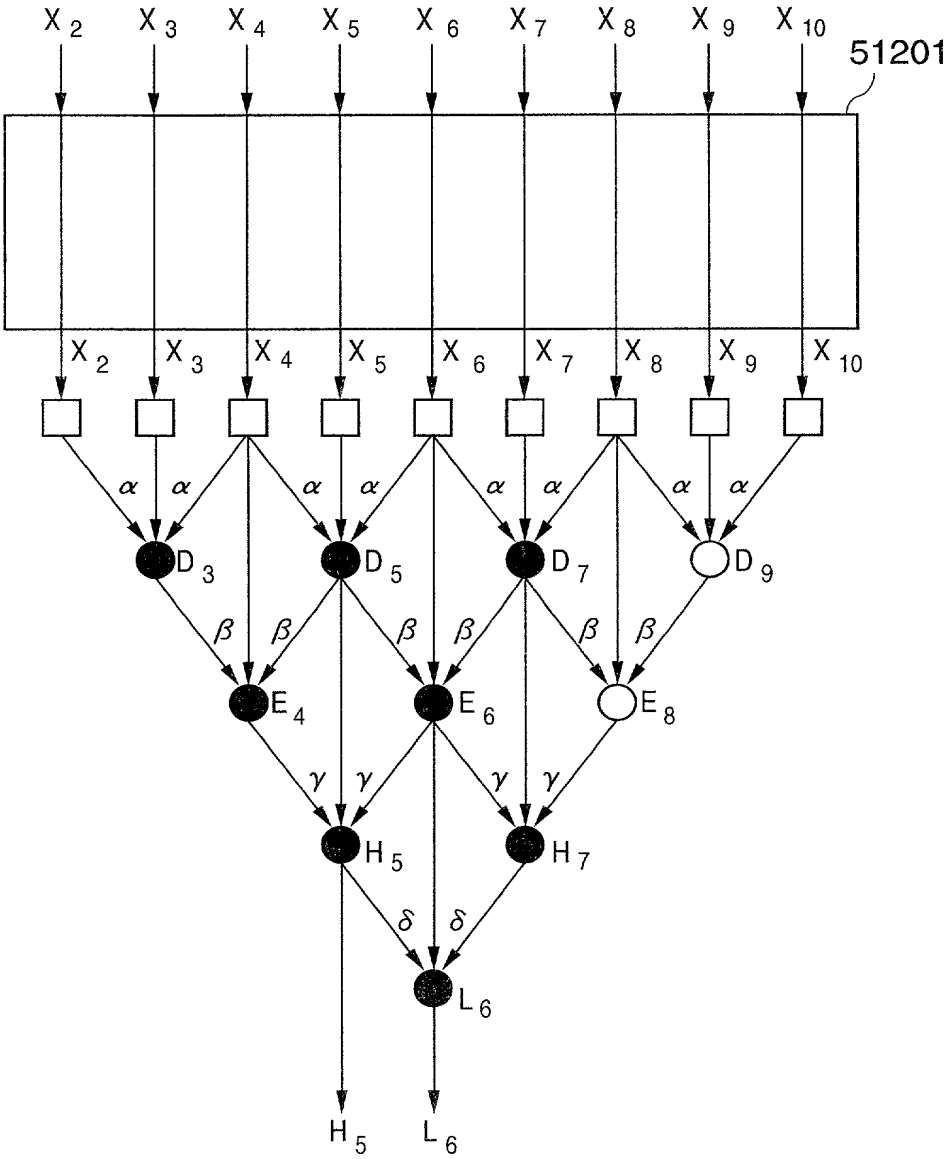


FIG. 50

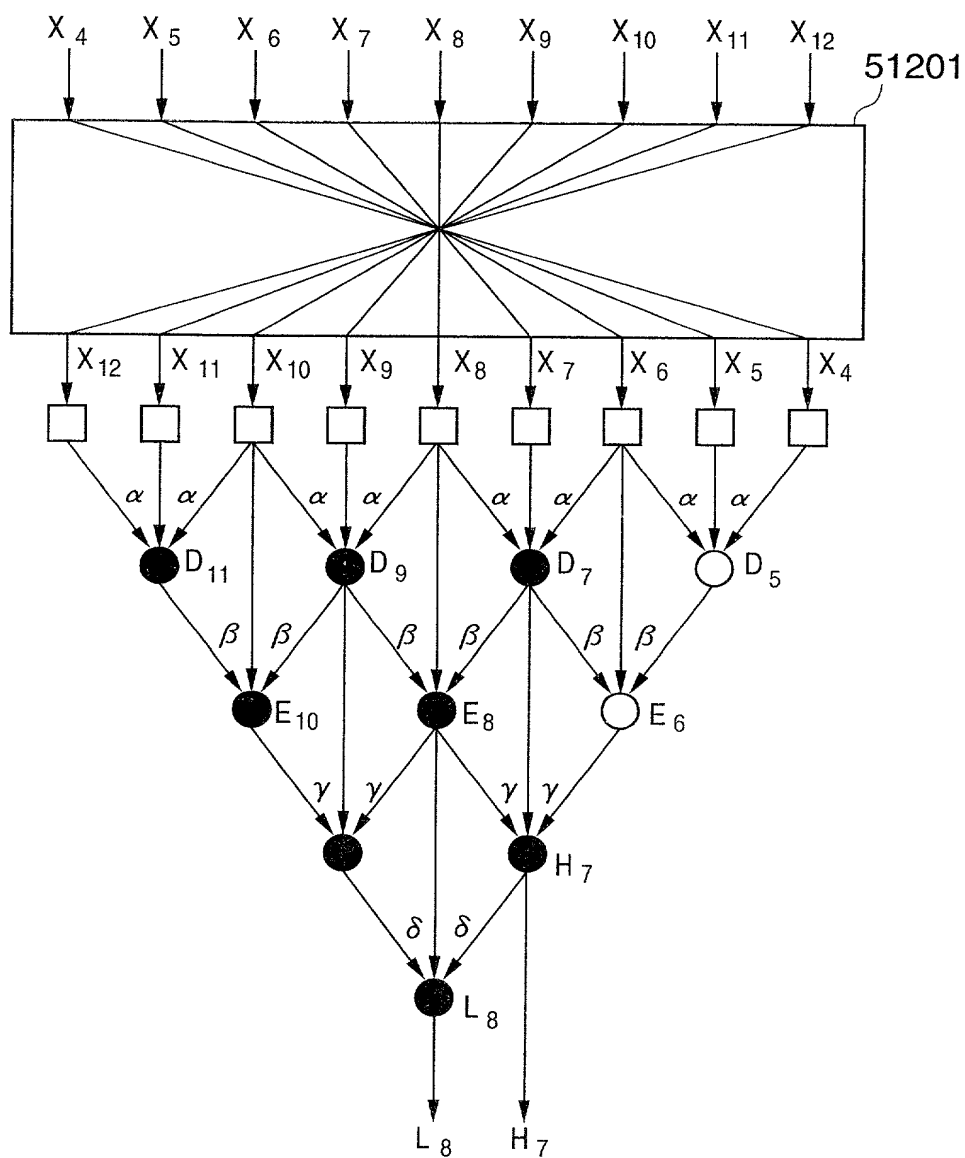


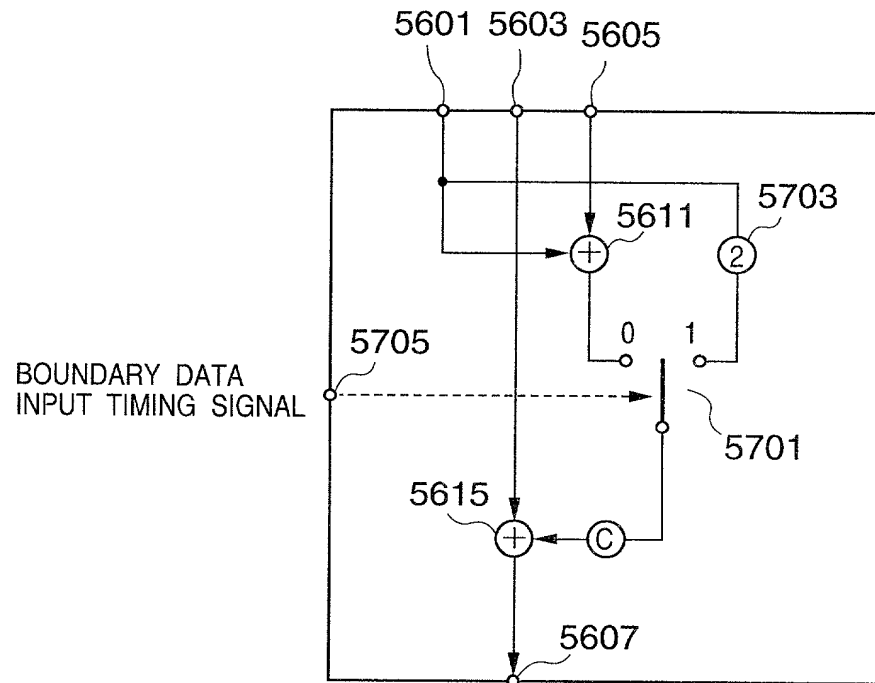
FIG. 51

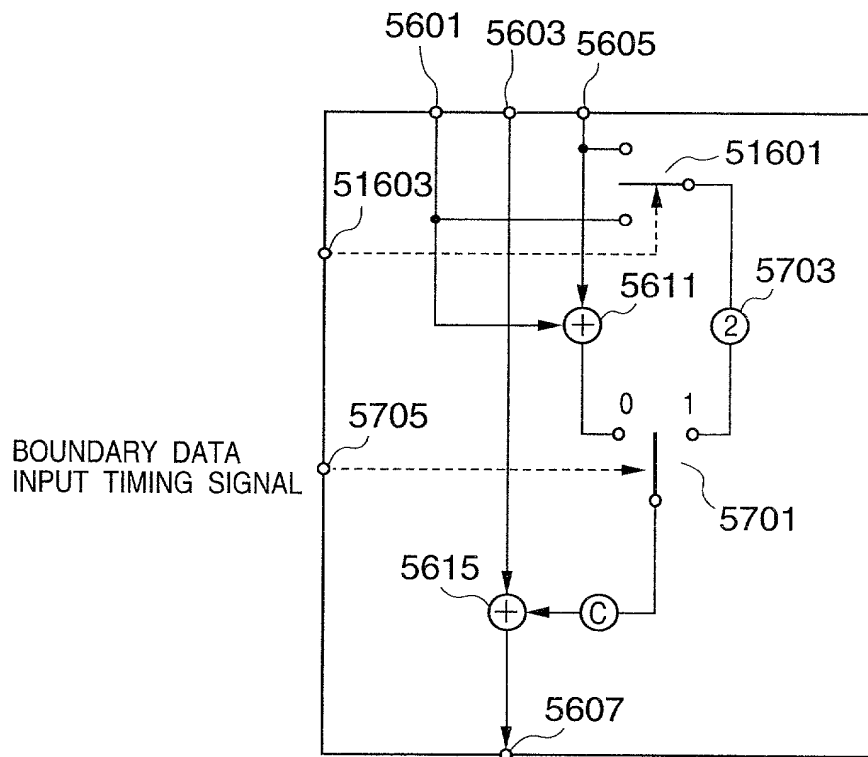
FIG. 52

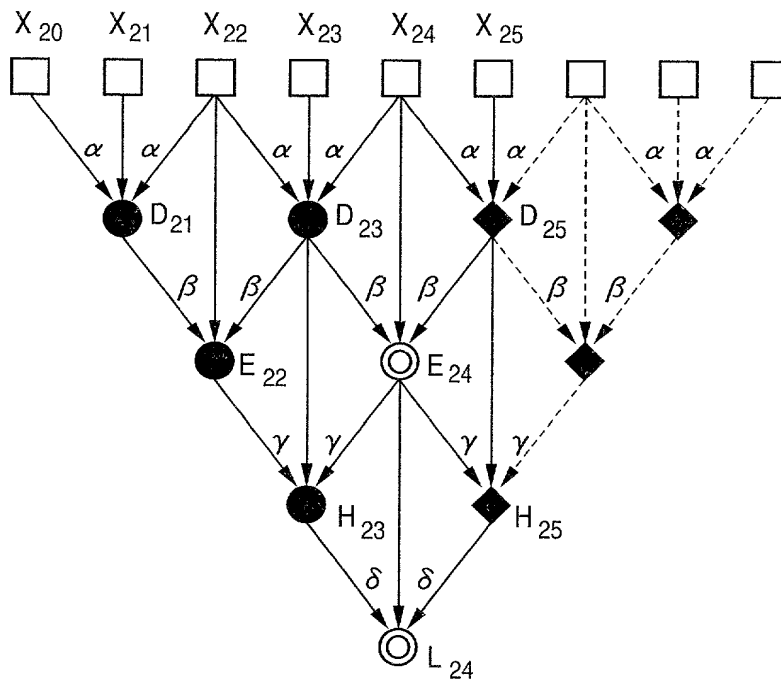
FIG. 53

FIG. 54

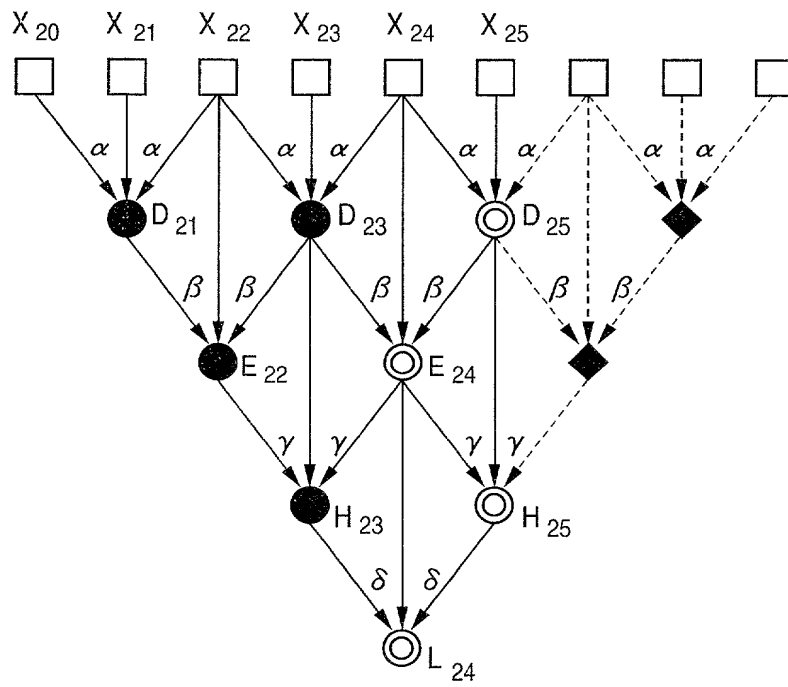


FIG. 55

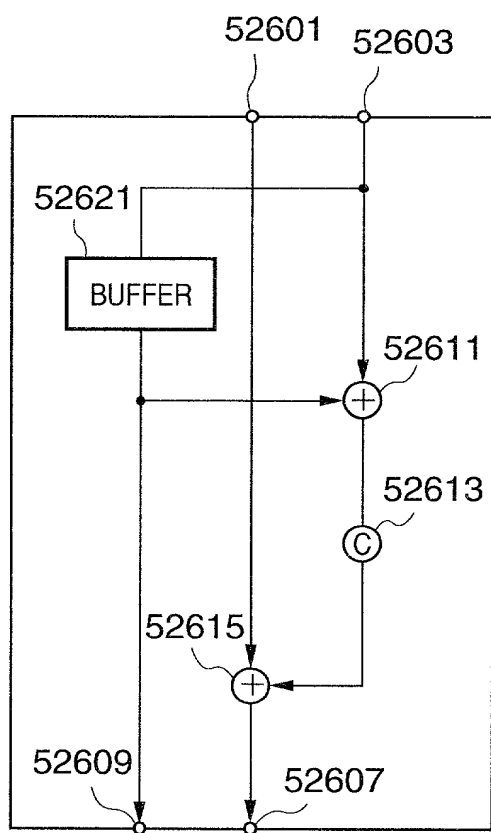


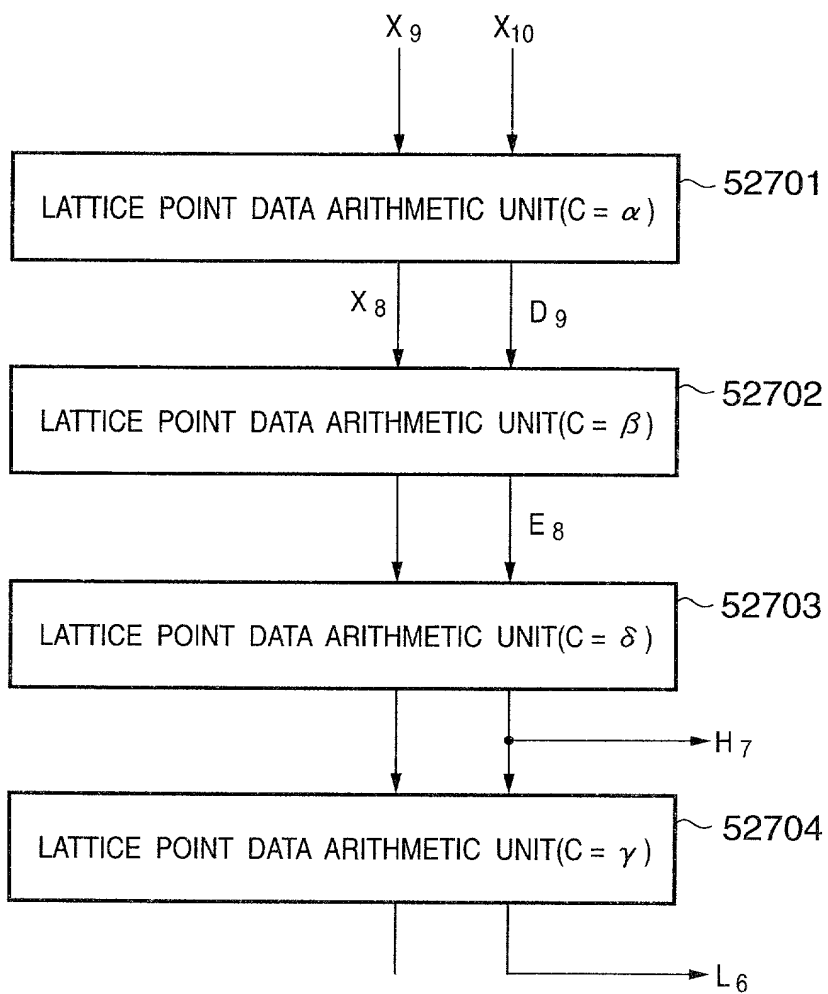
FIG. 56

FIG. 57

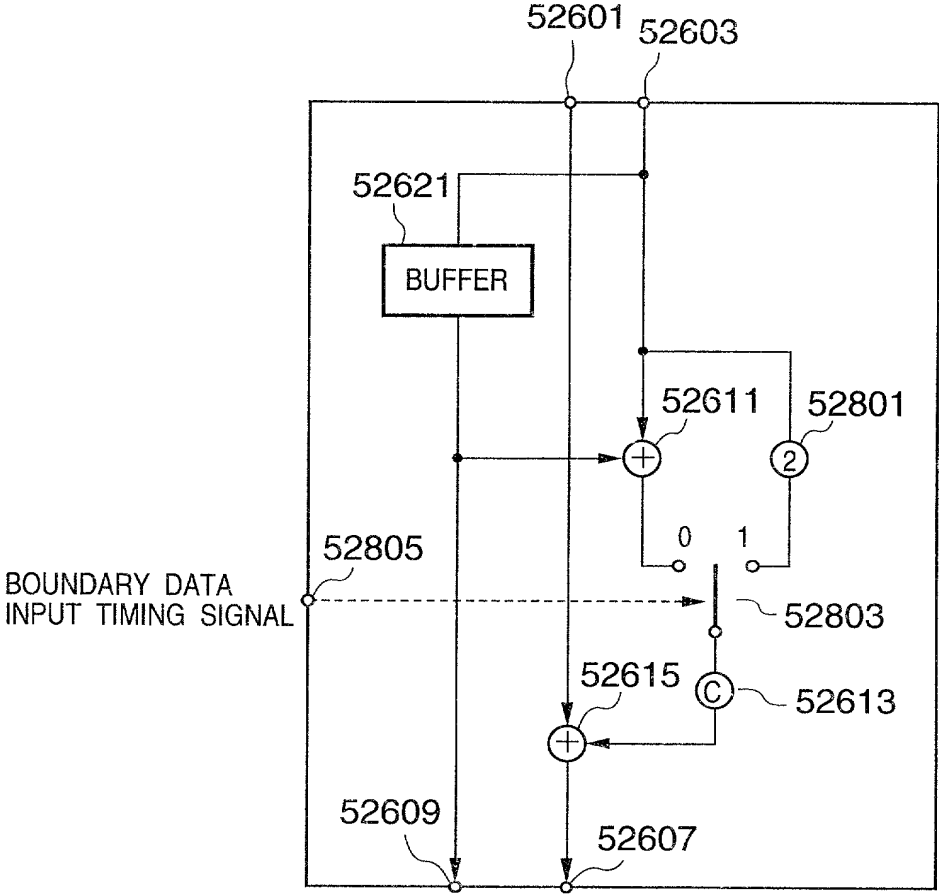


FIG. 58

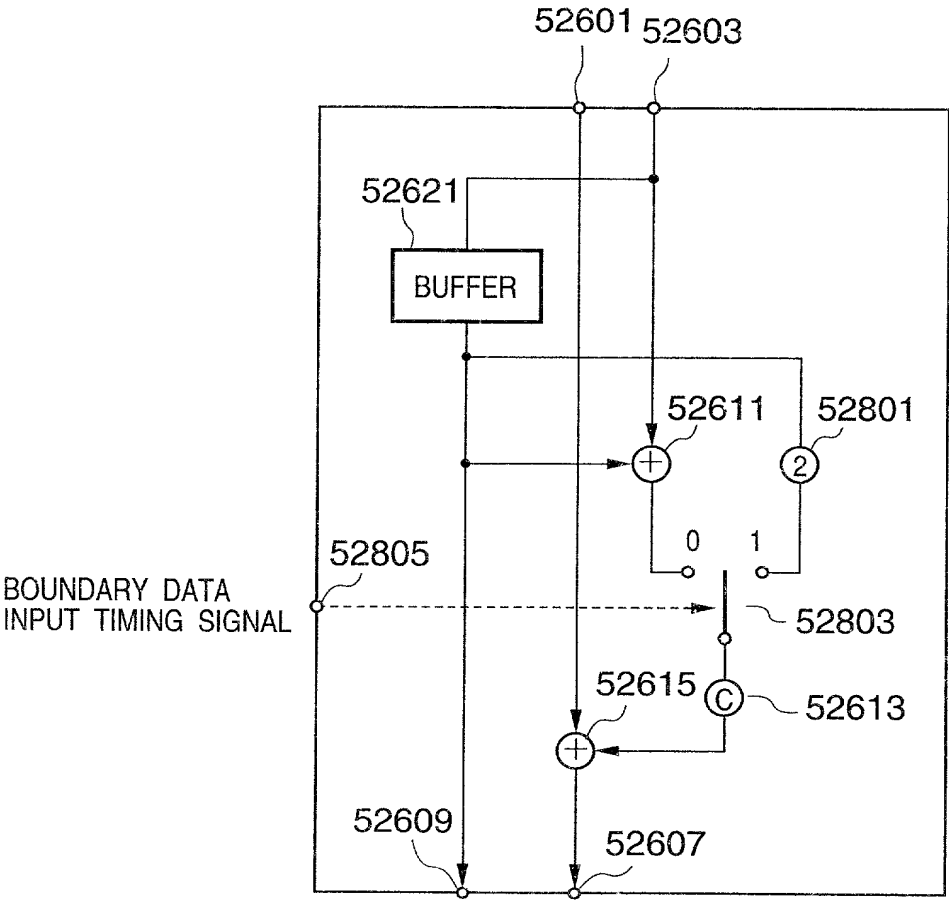


FIG. 59

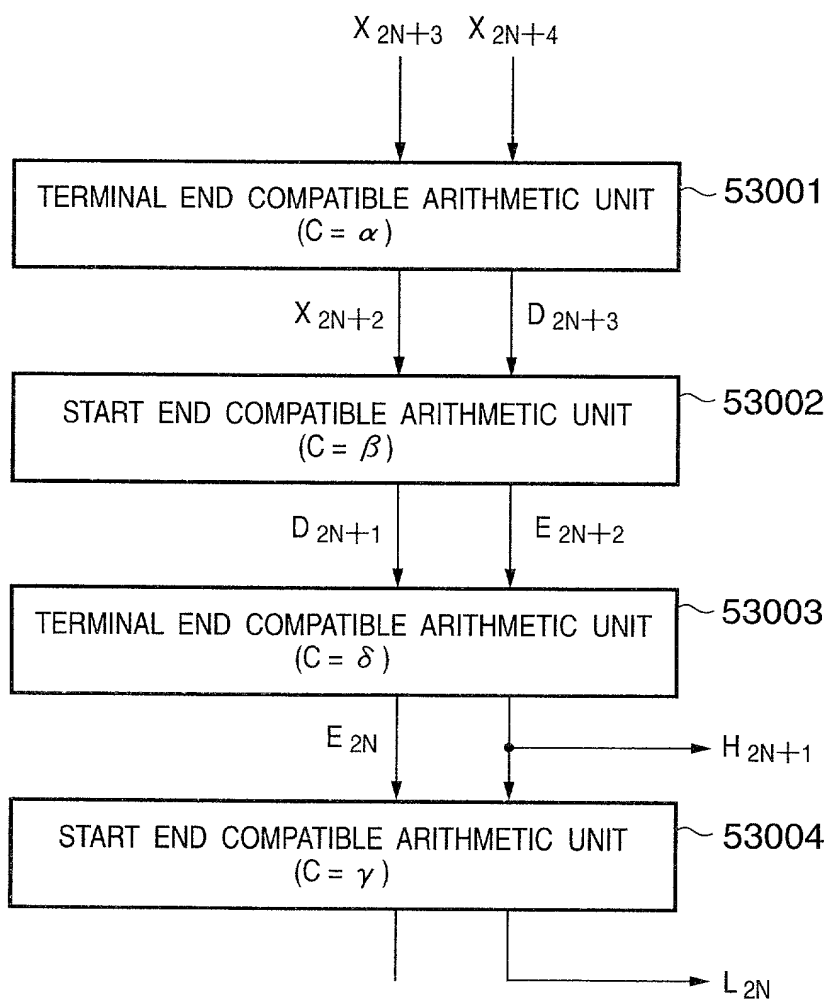


FIG. 60

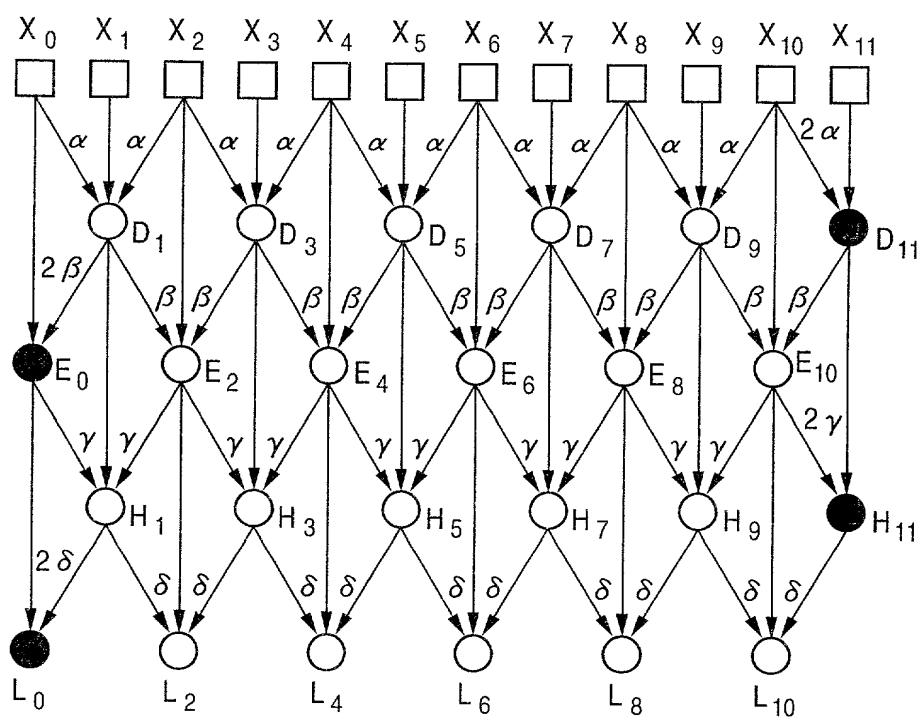


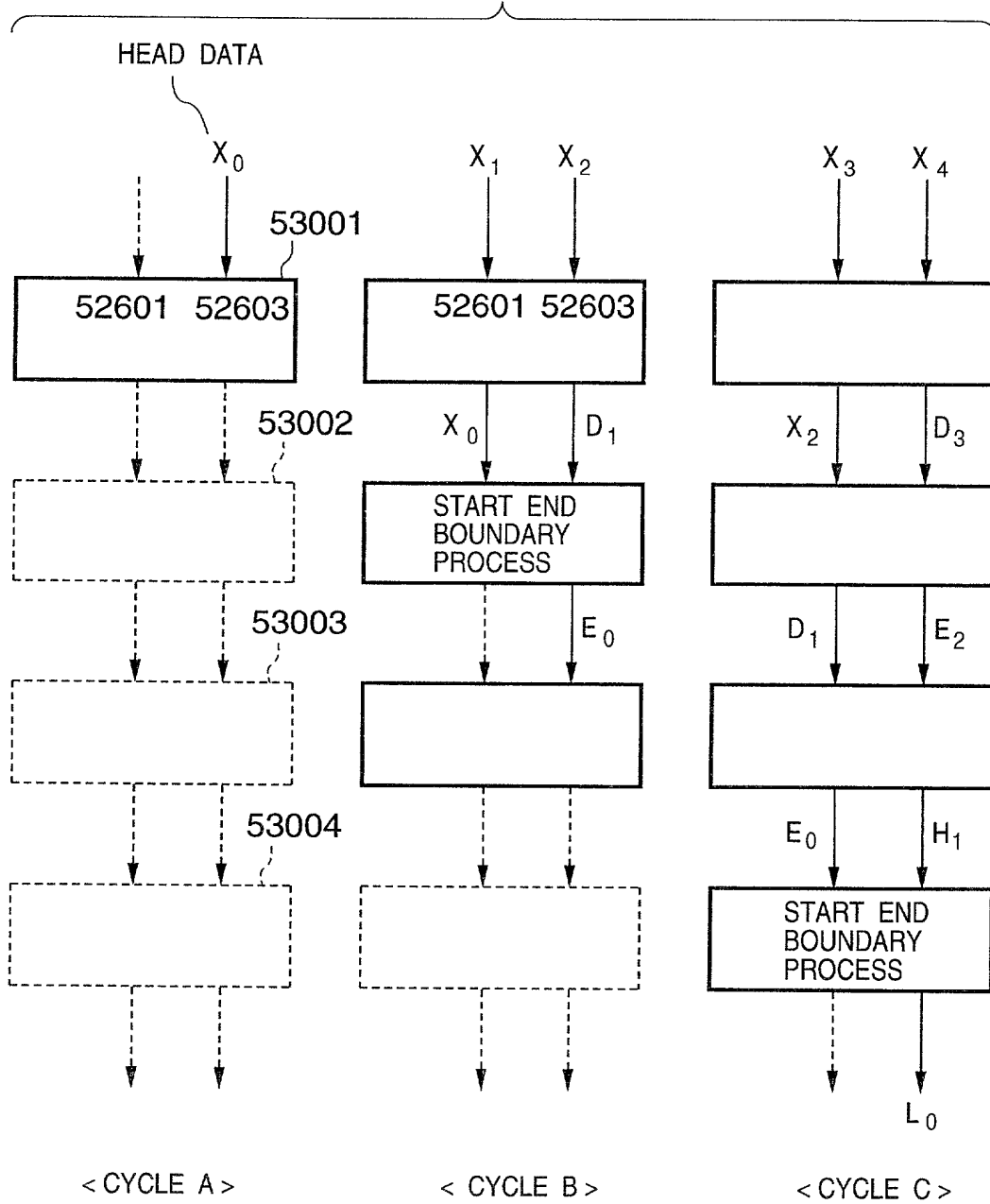
FIG. 61

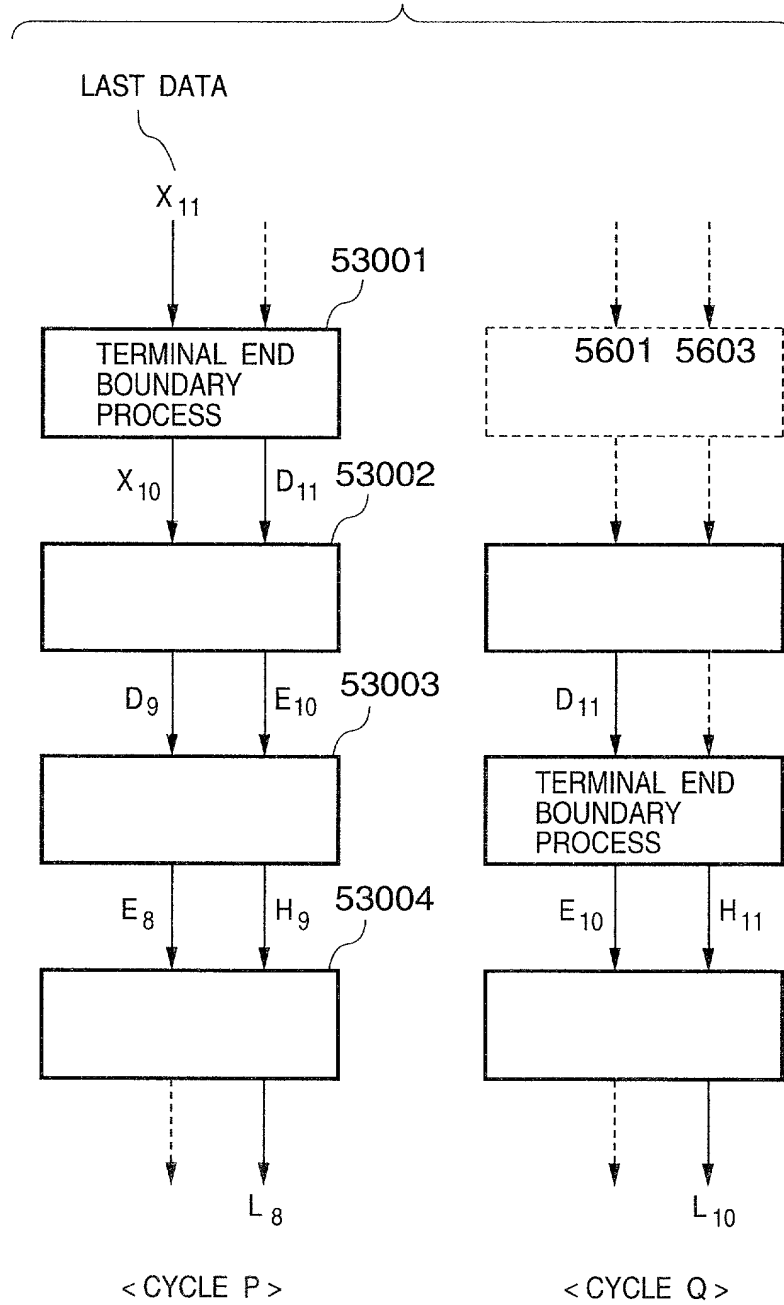
FIG. 62

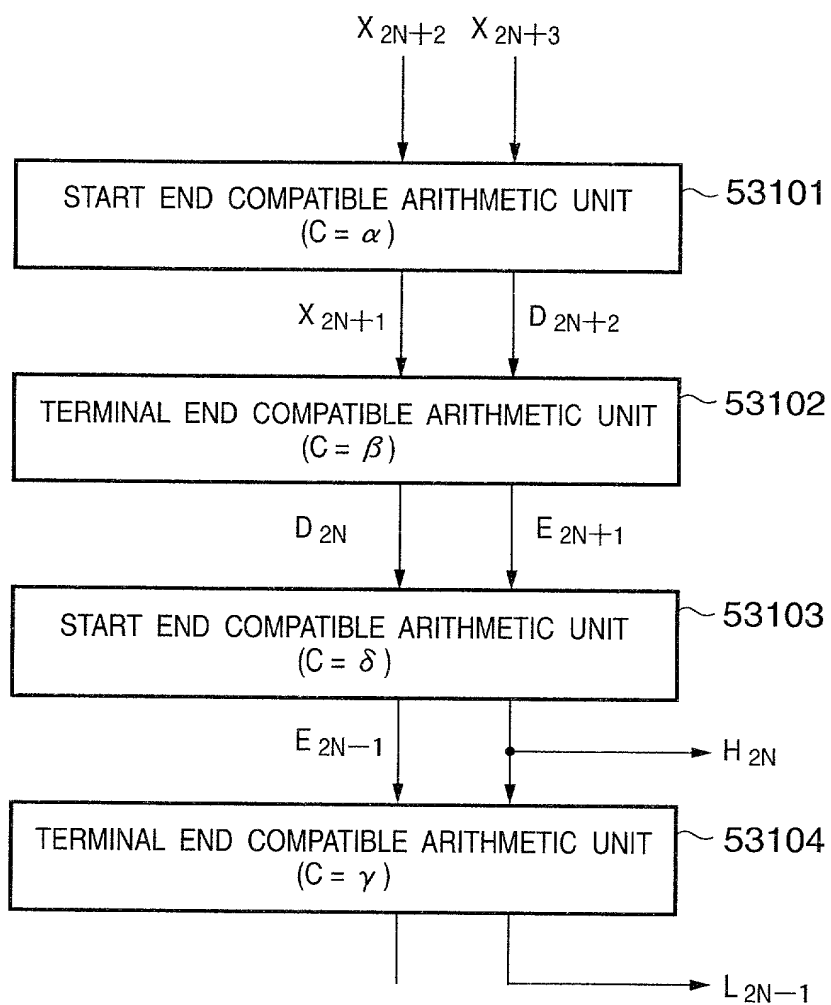
FIG. 63

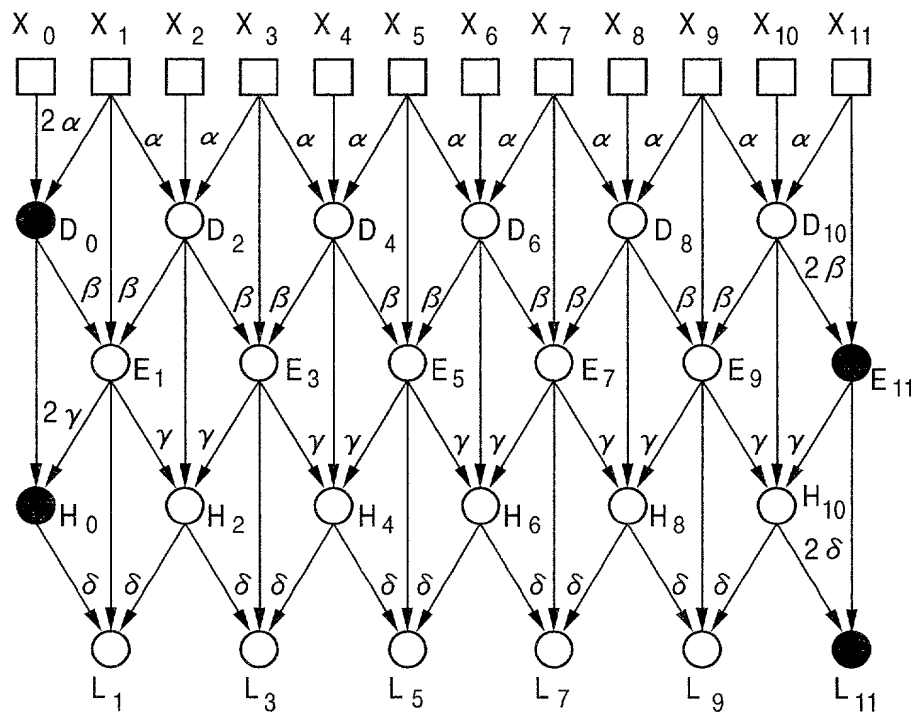
FIG. 64

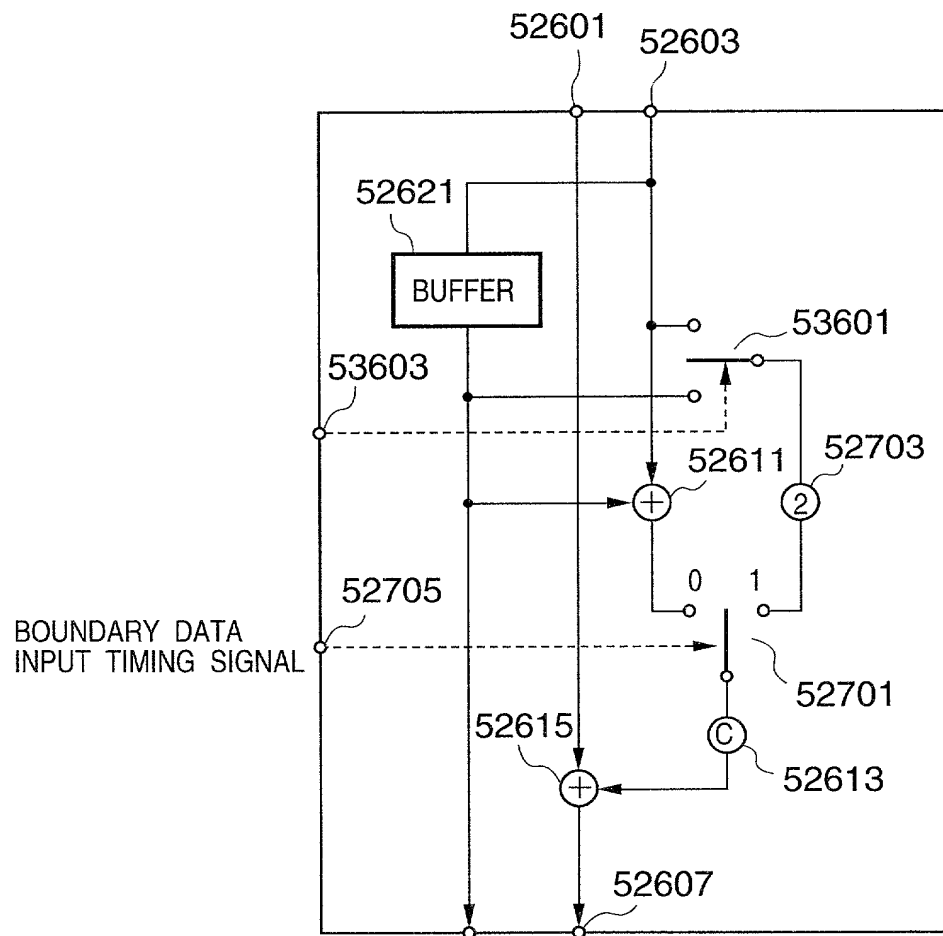
FIG. 65

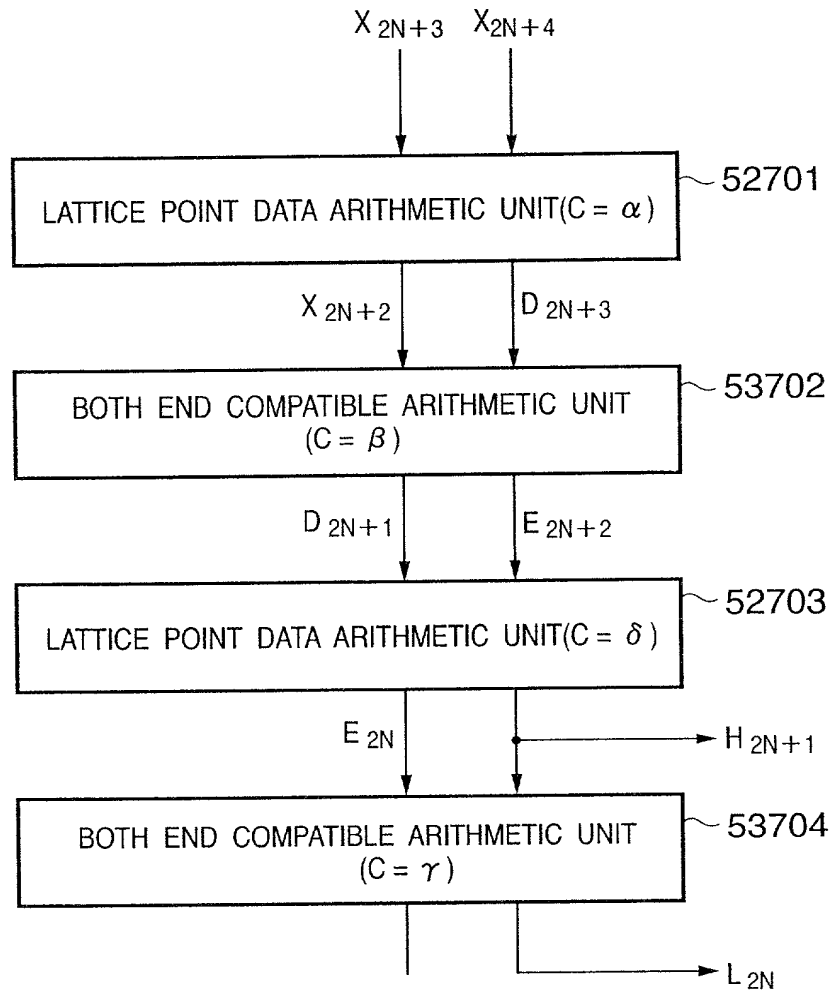
FIG. 66

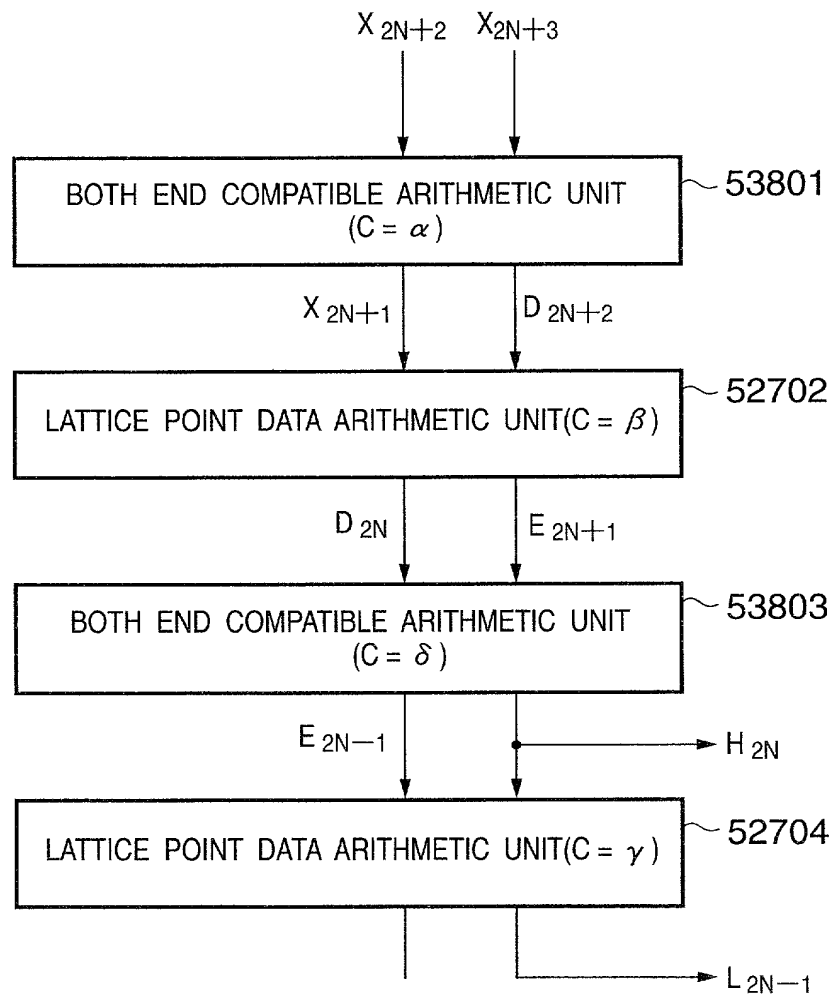
FIG. 67

FIG. 68

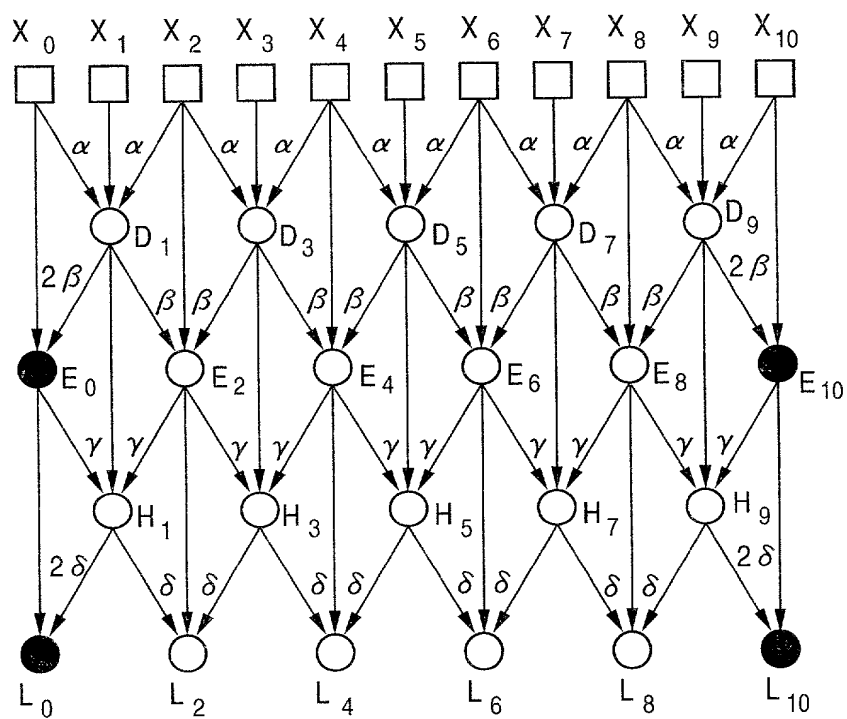


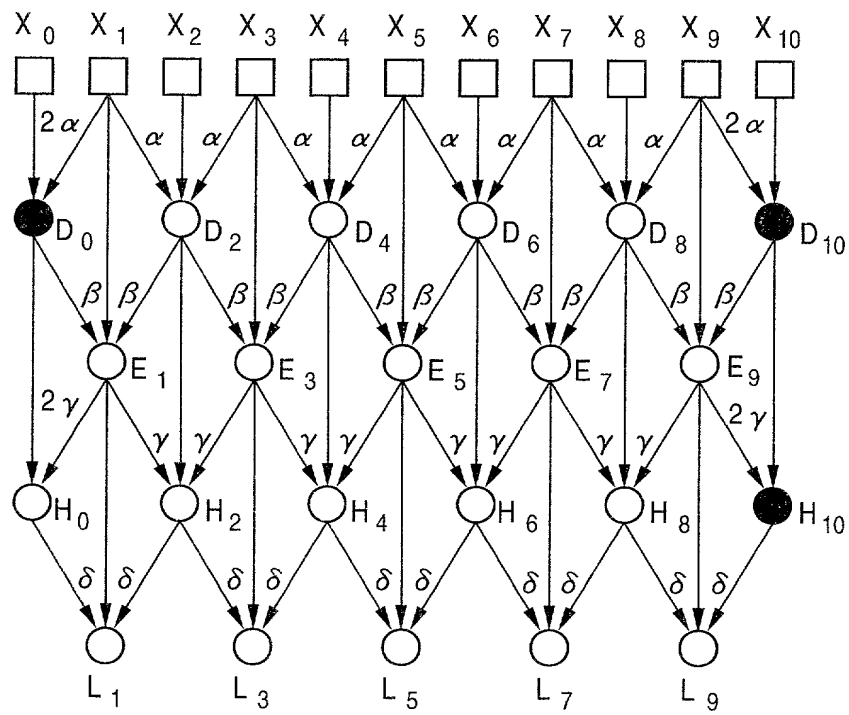
FIG. 69

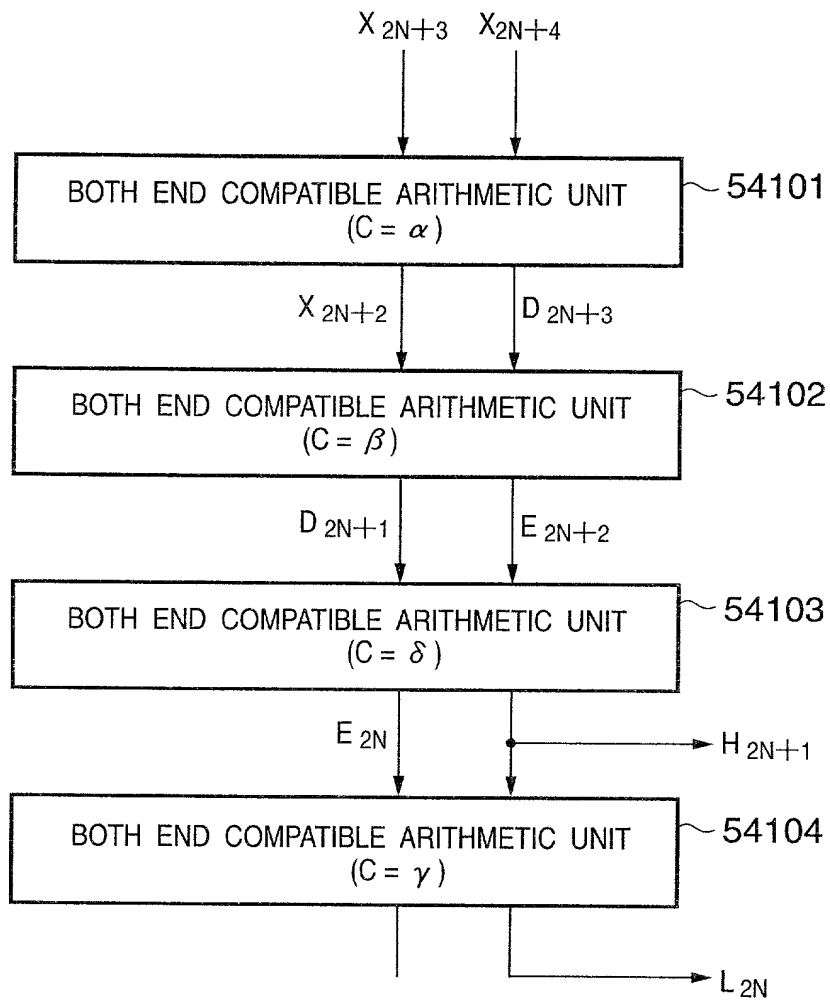
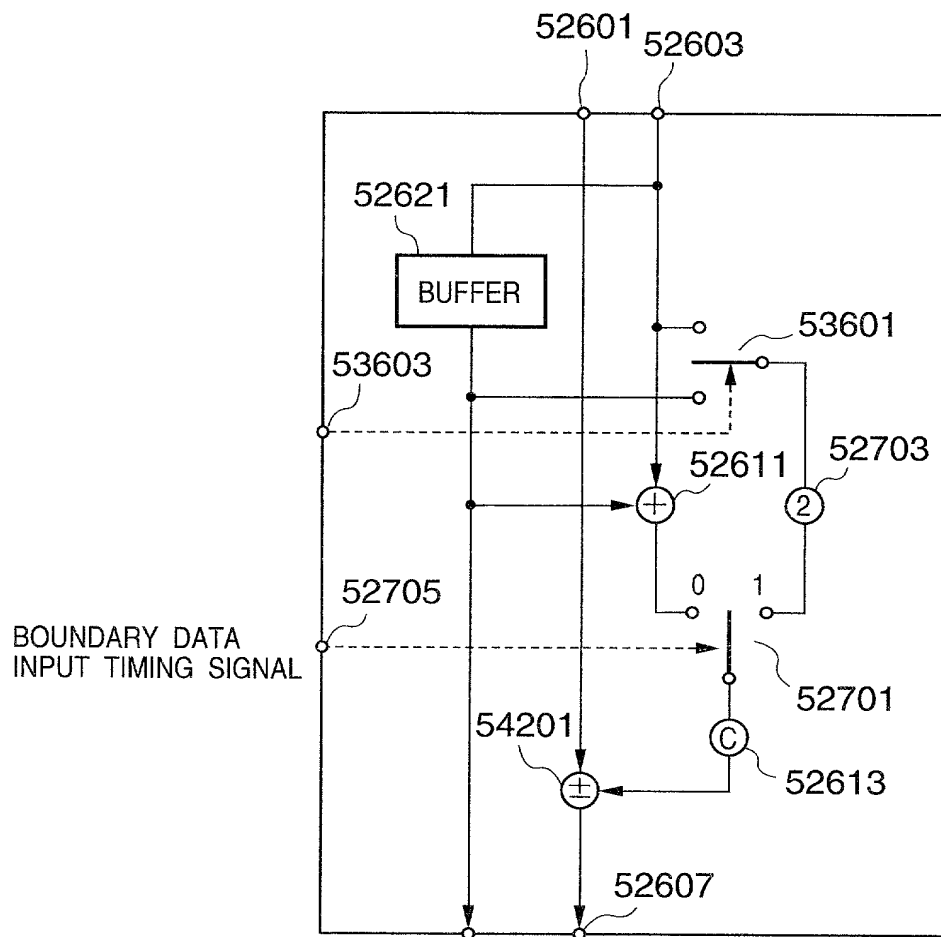
FIG. 70

FIG. 71

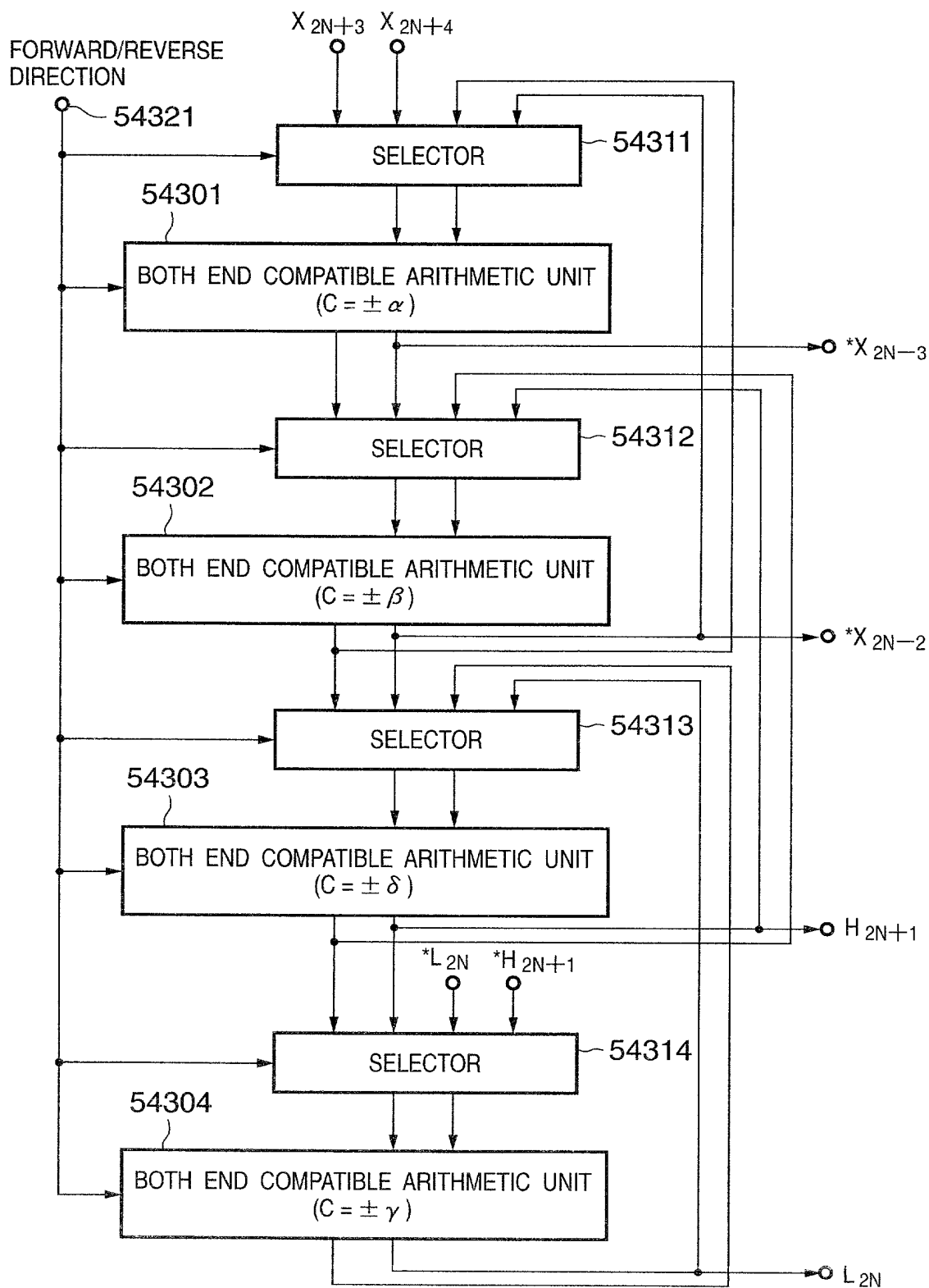


FIG. 73

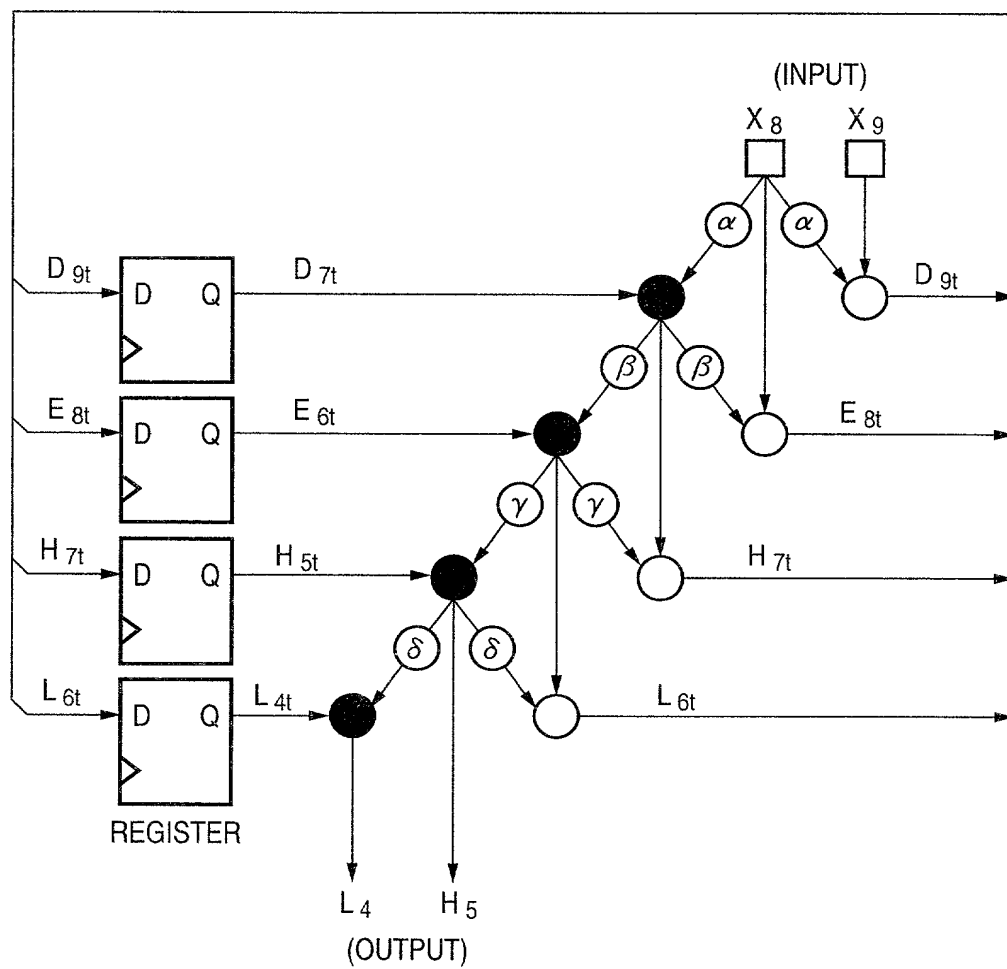


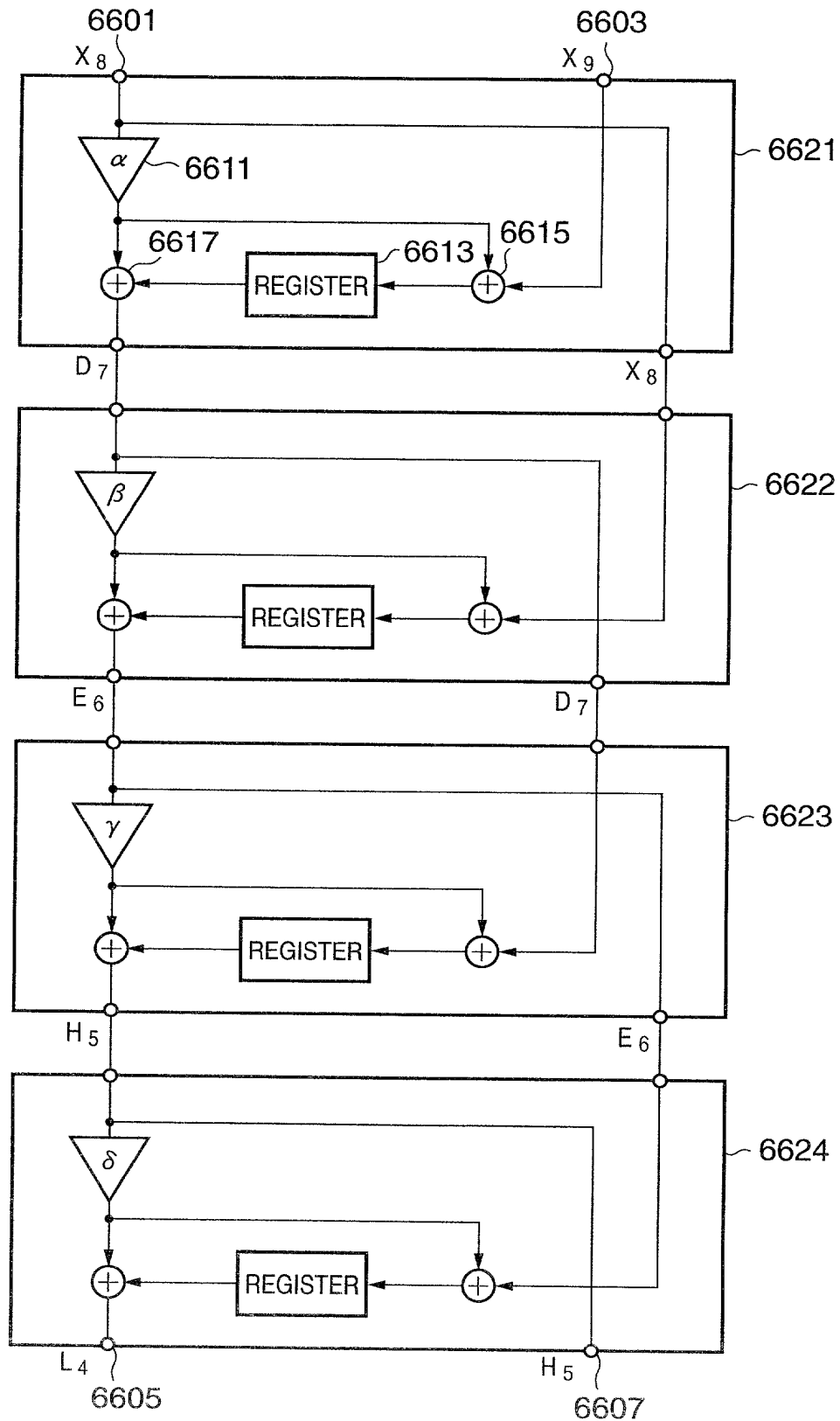
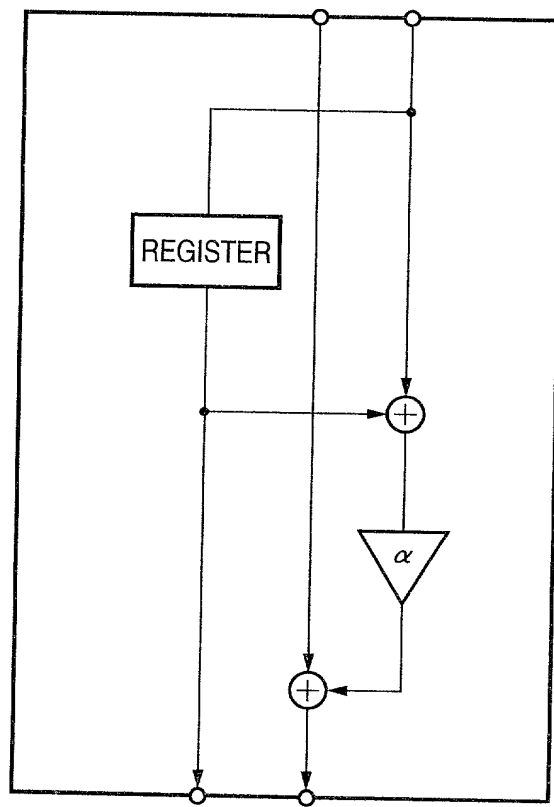
FIG. 74

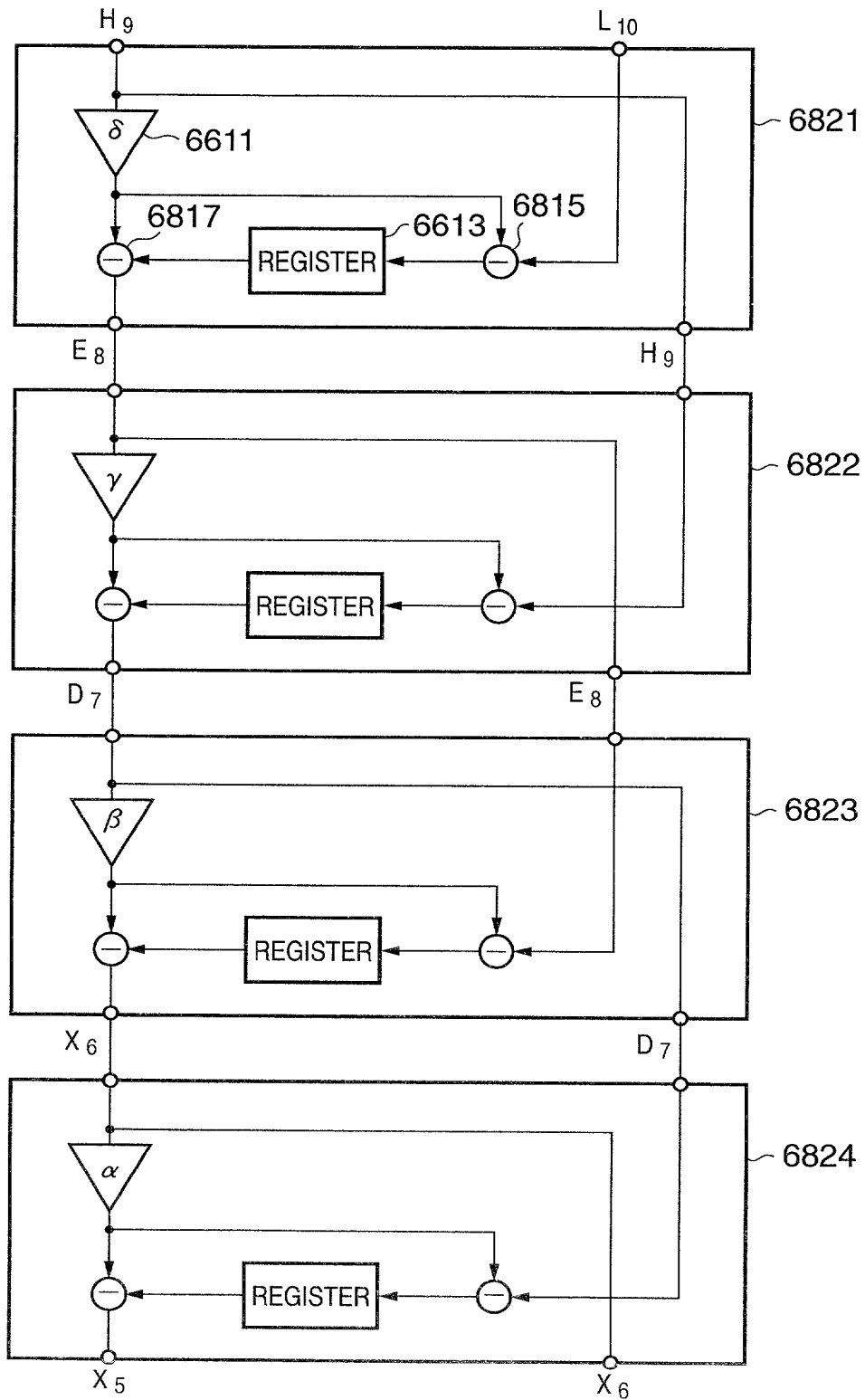
FIG. 75



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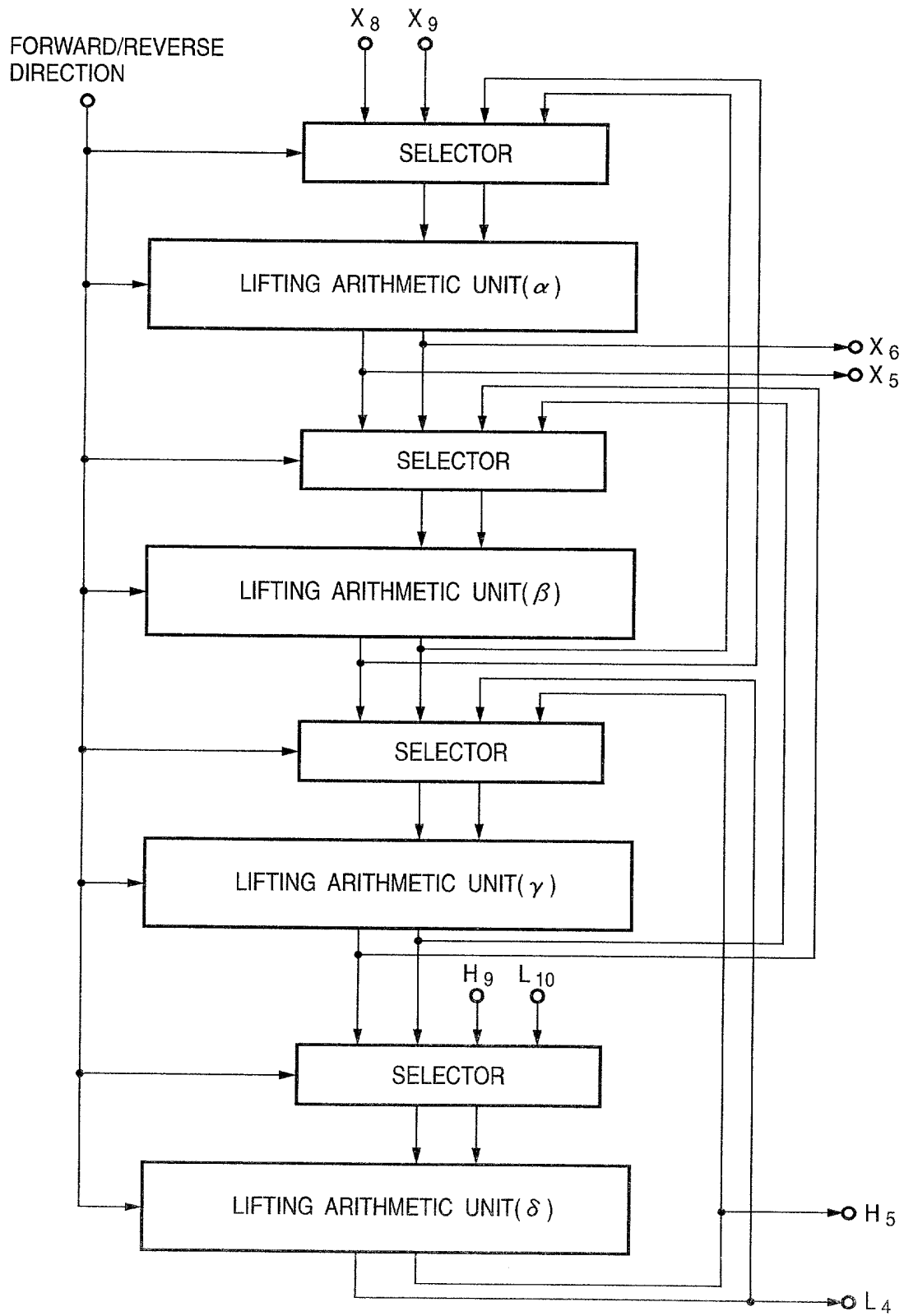
FIG. 76



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FIG. 77



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FIG. 78

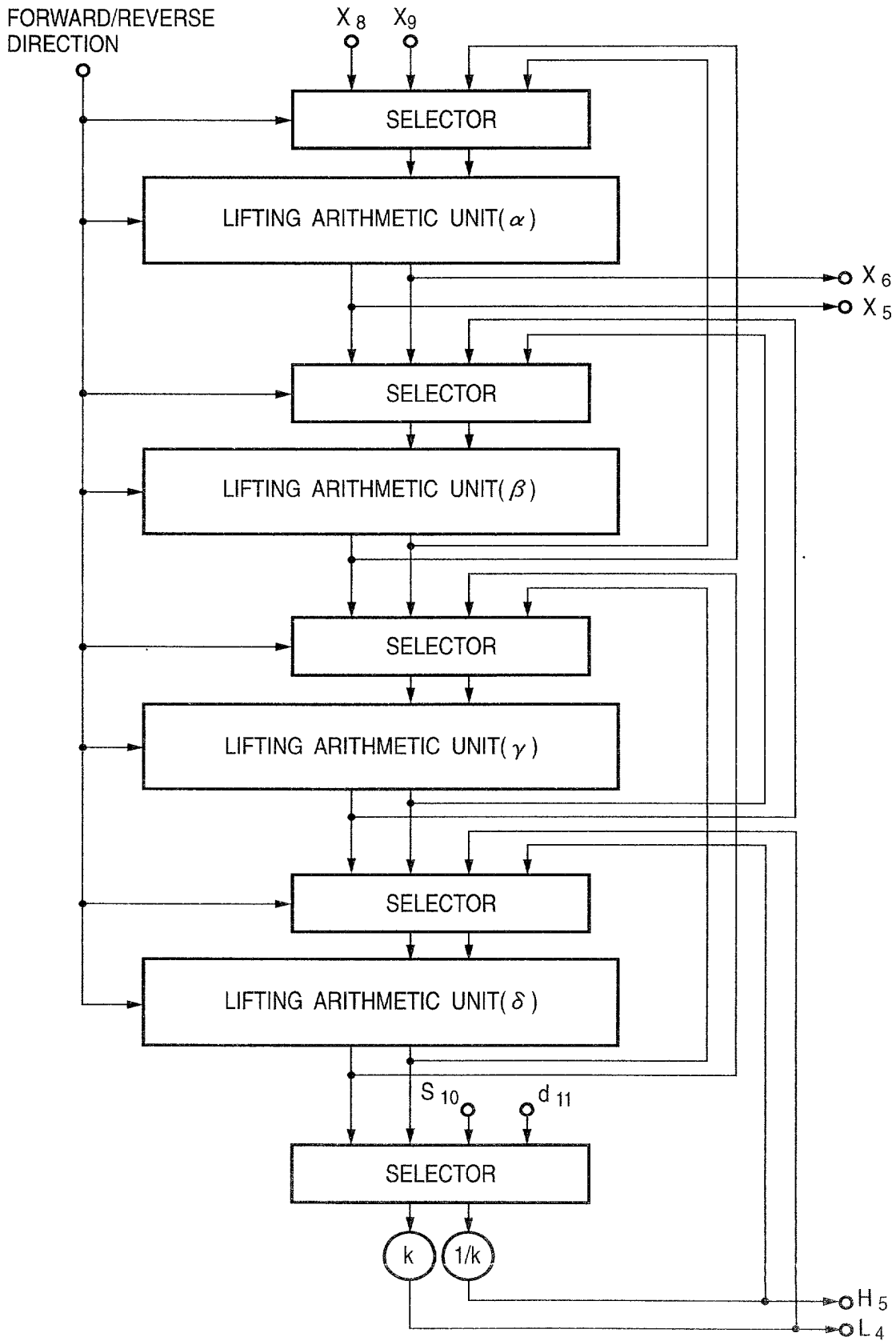


FIG. 79

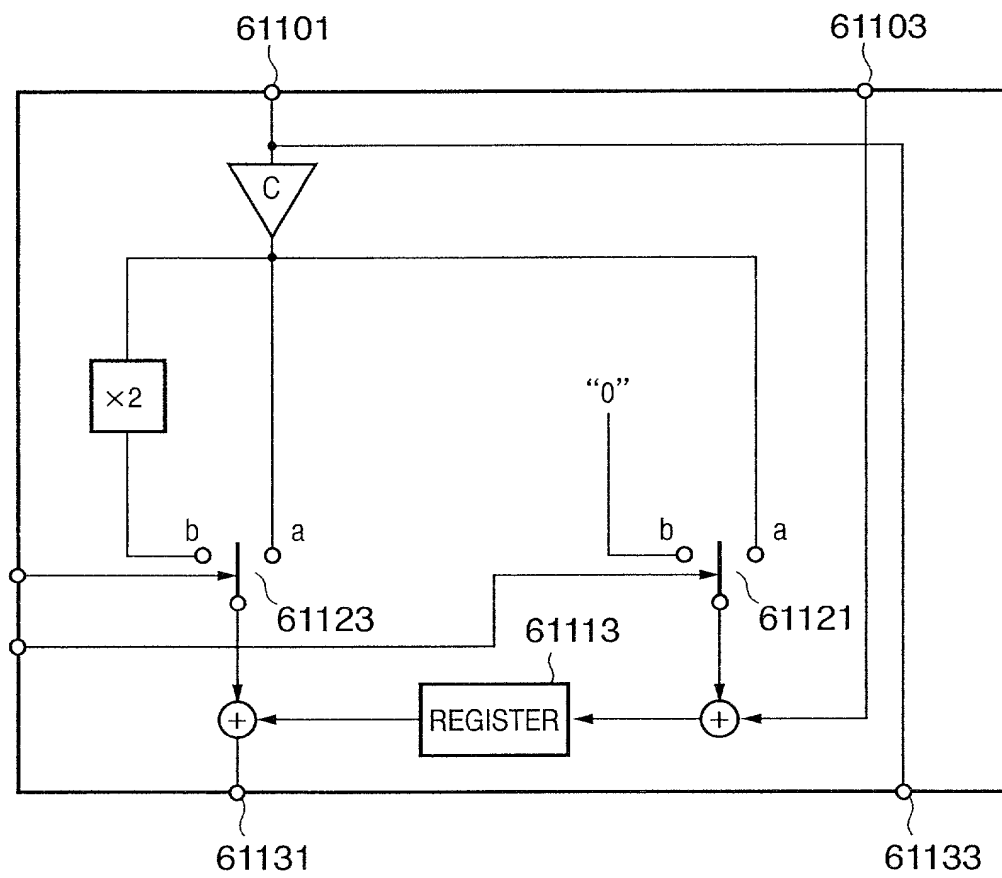


FIG. 80

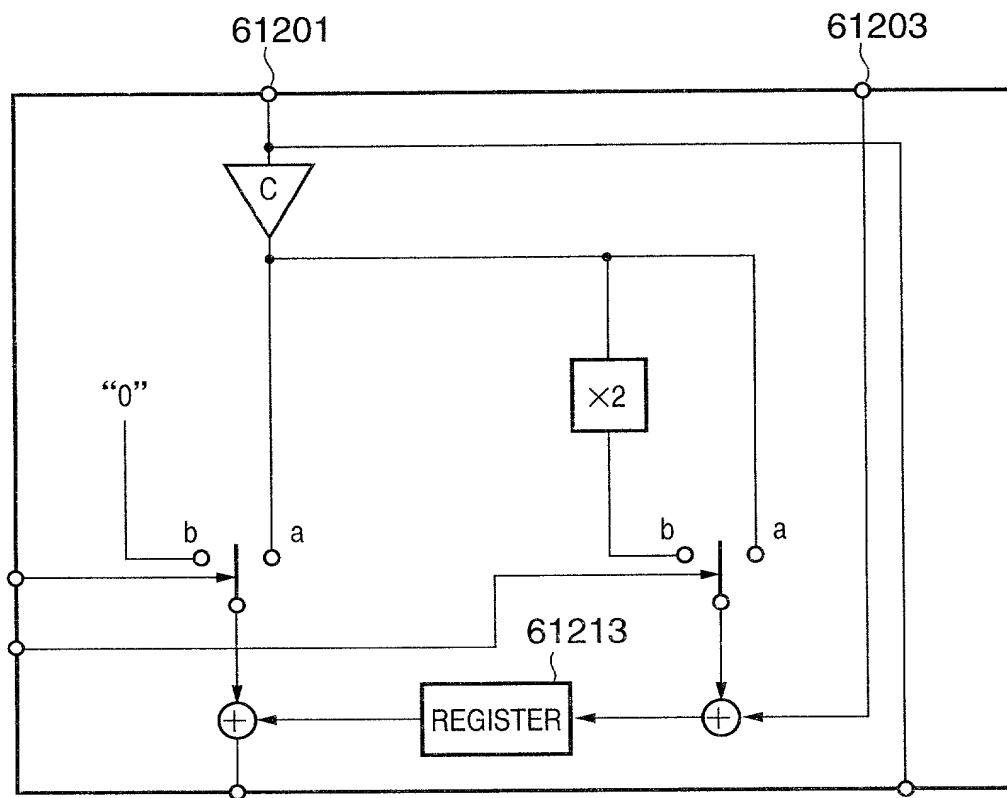


FIG. 81

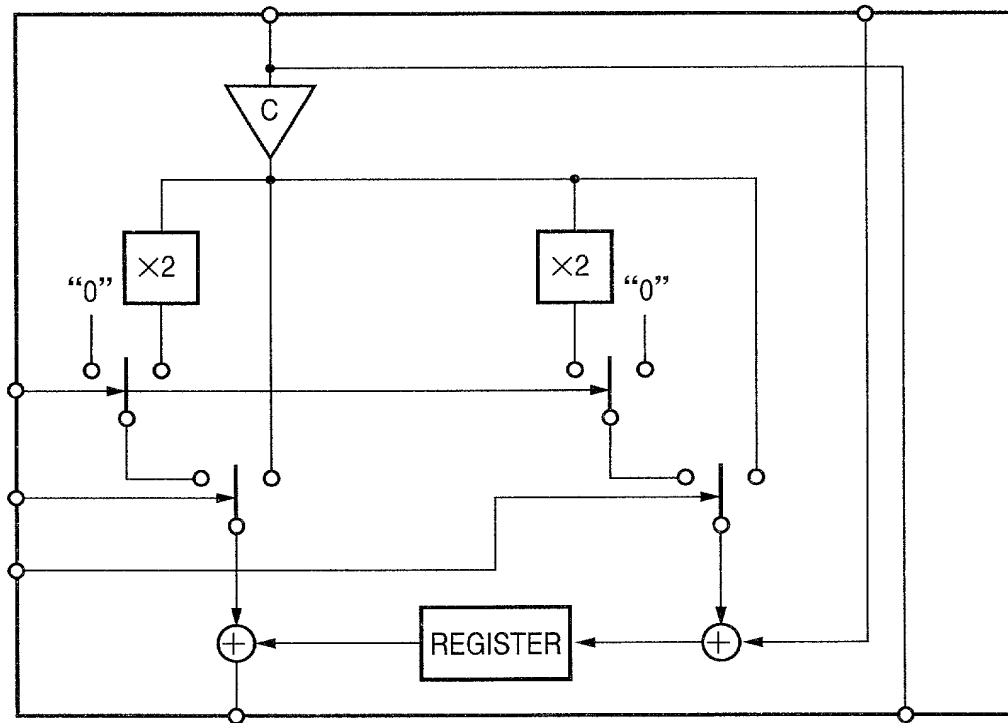


FIG. 82

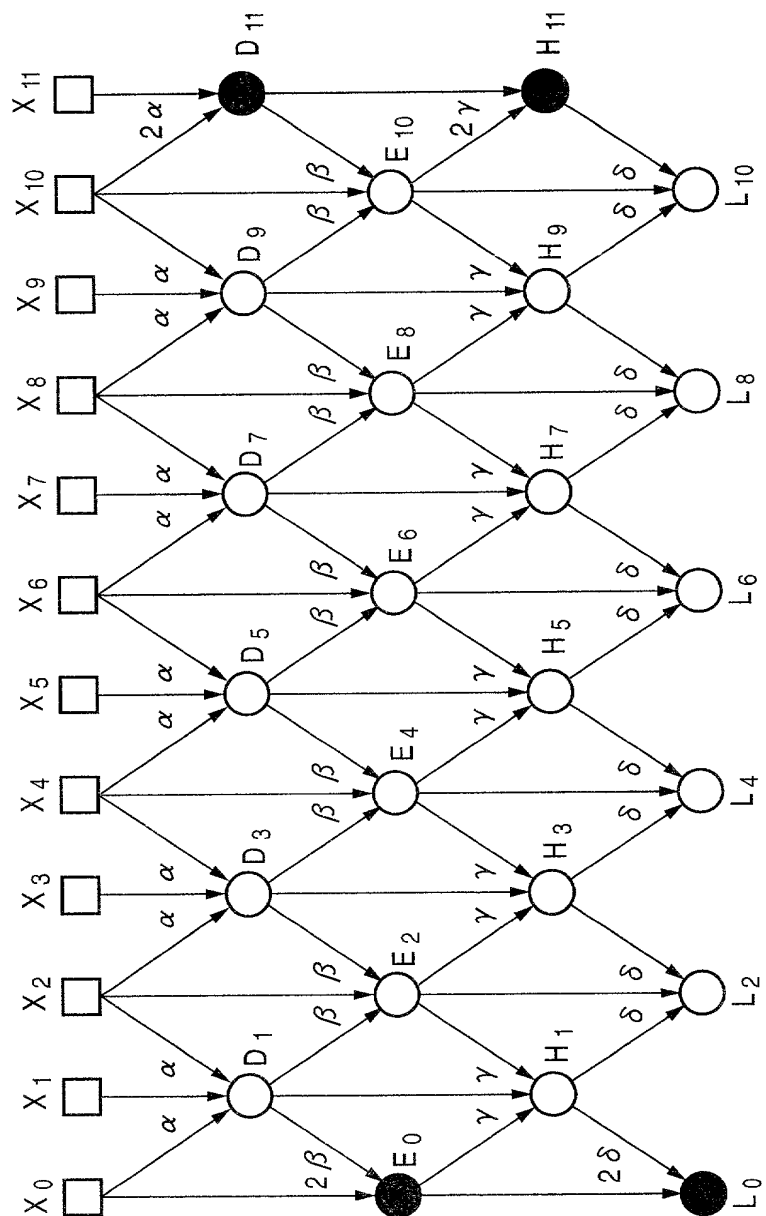


FIG. 83

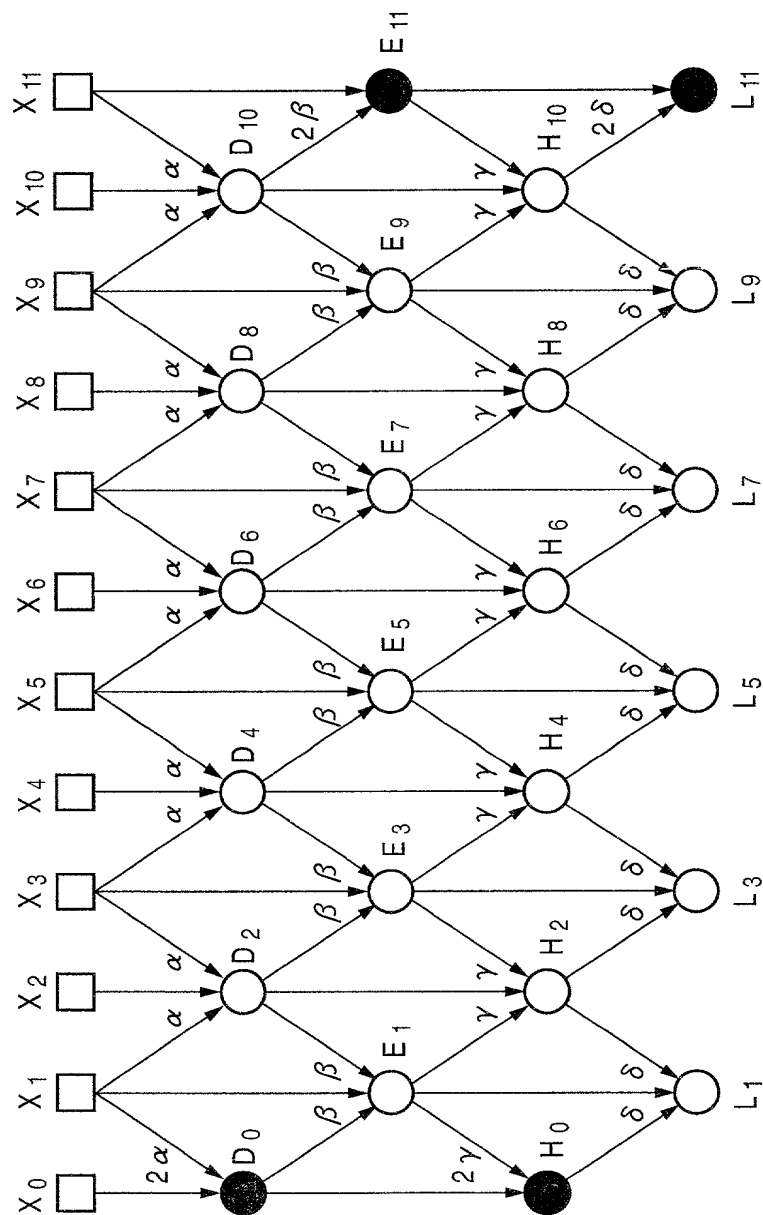


FIG. 84

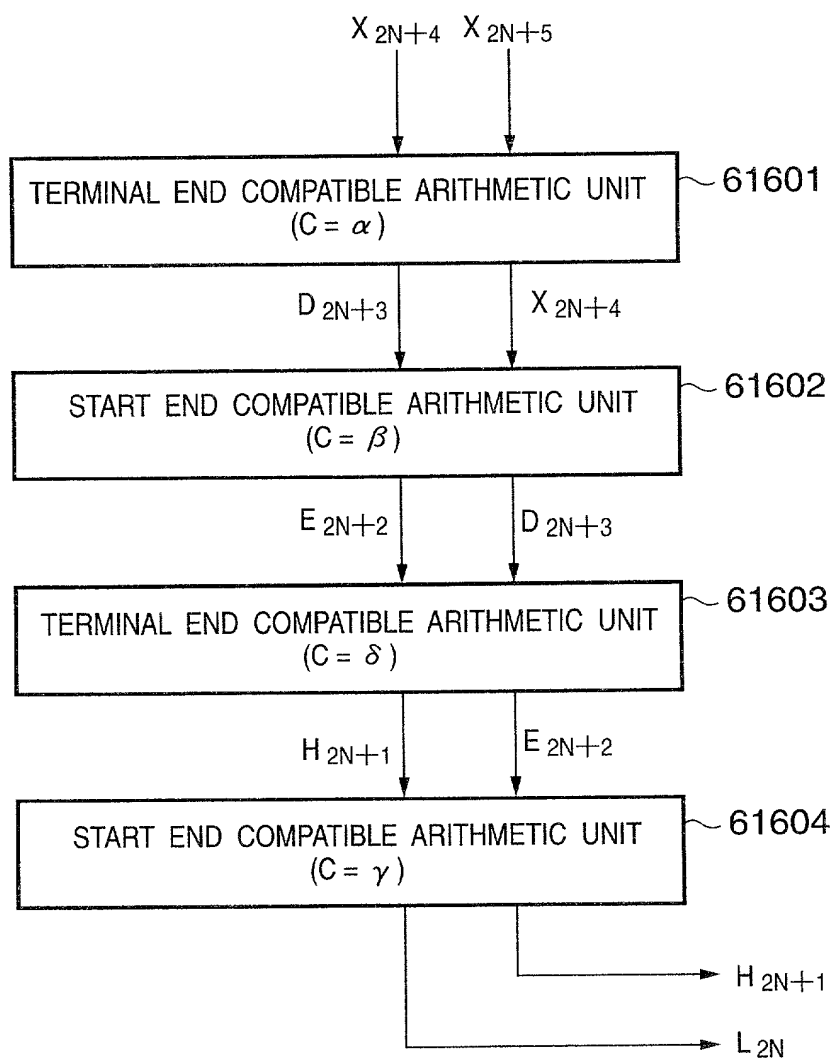


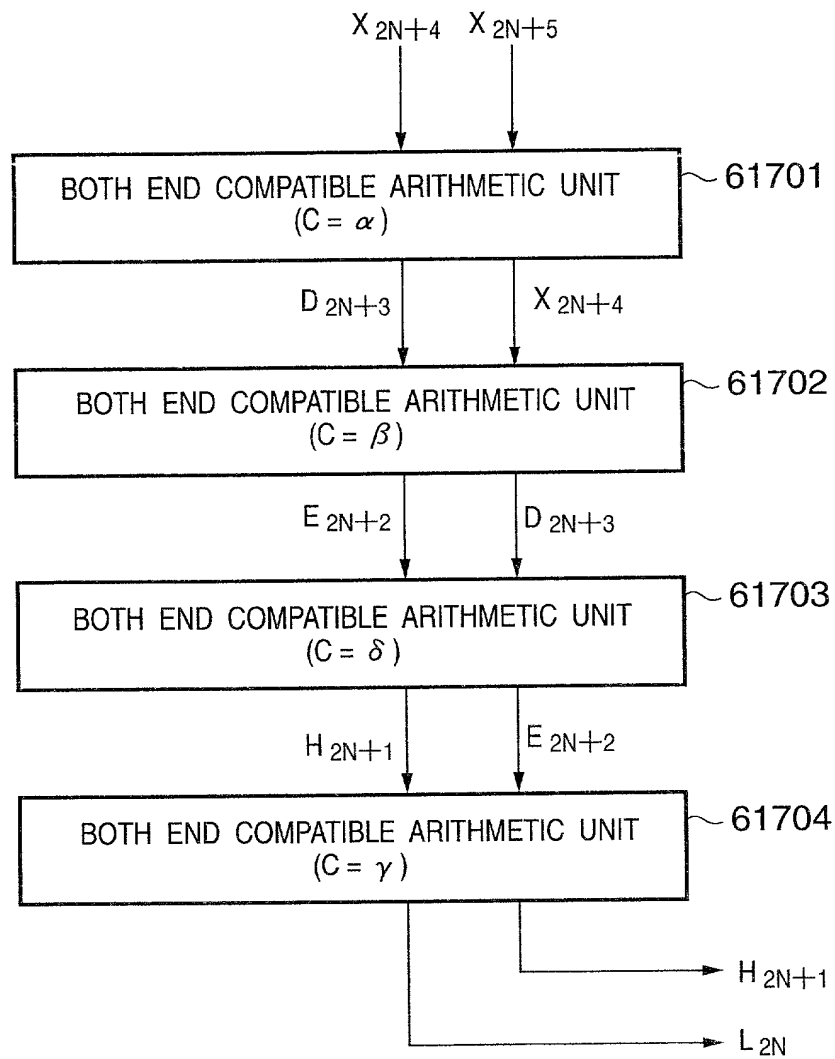
FIG. 85

FIG. 86

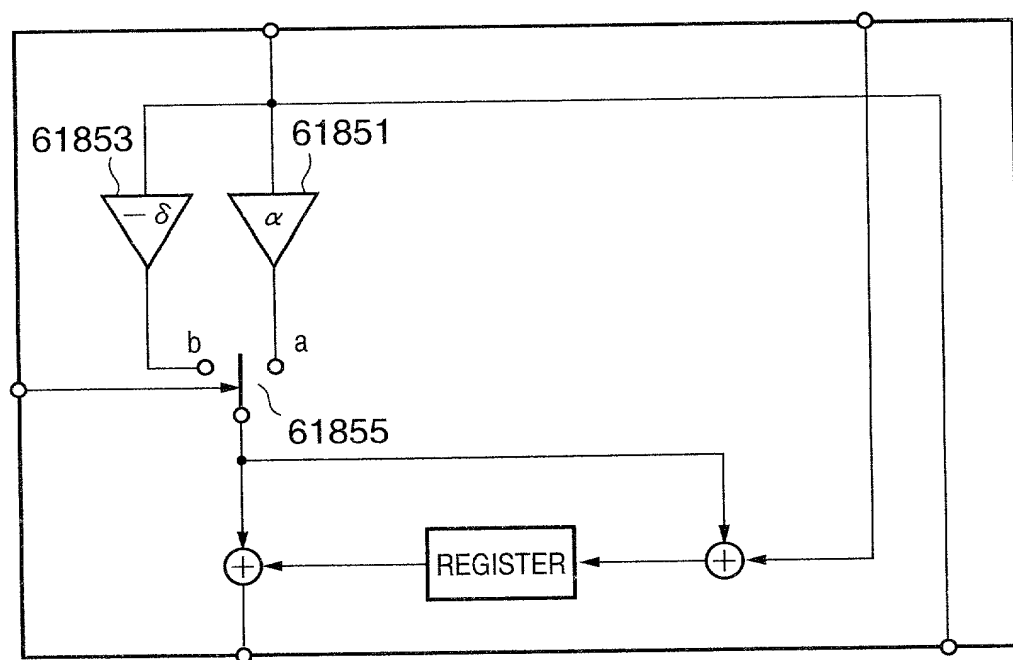


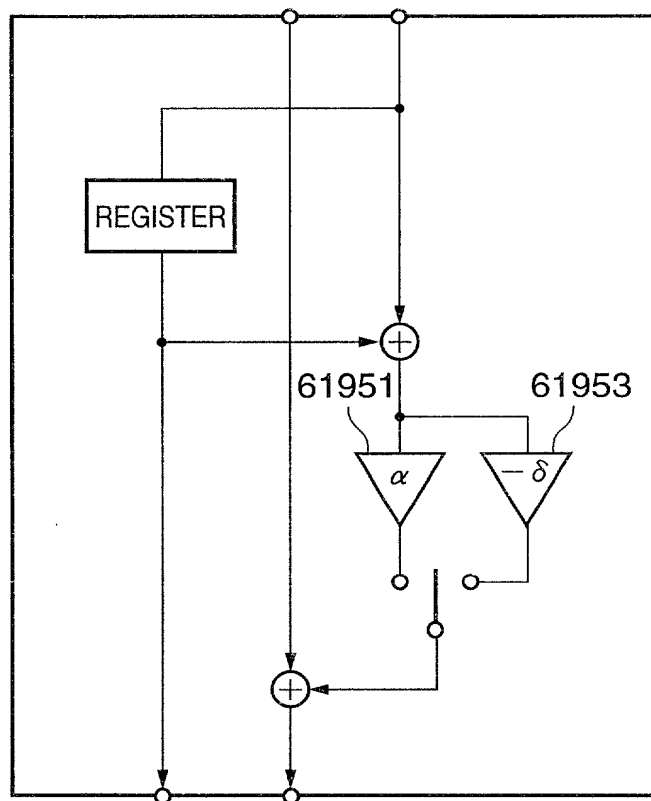
FIG. 87

FIG. 88

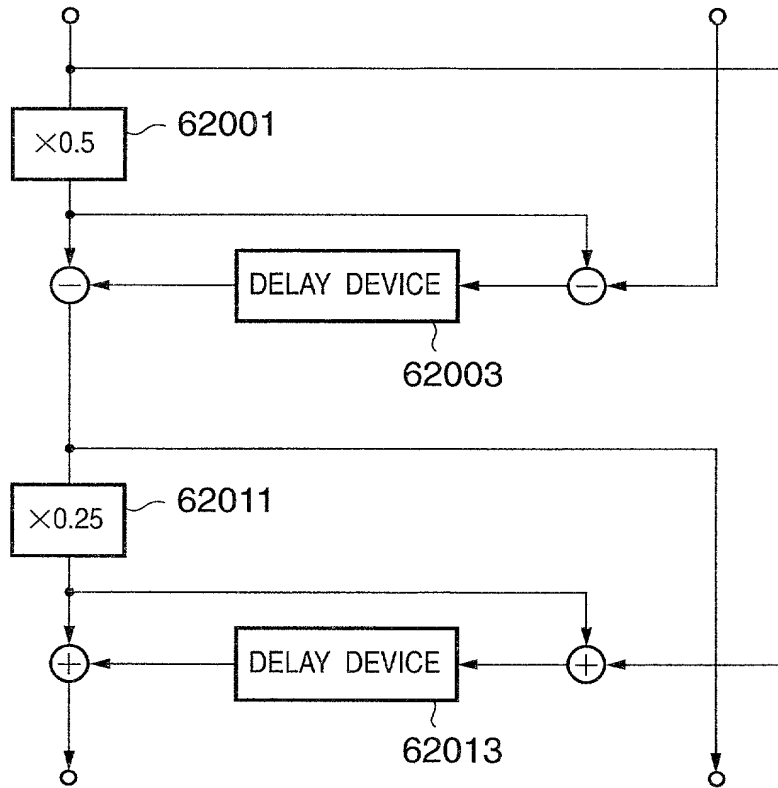


FIG. 89

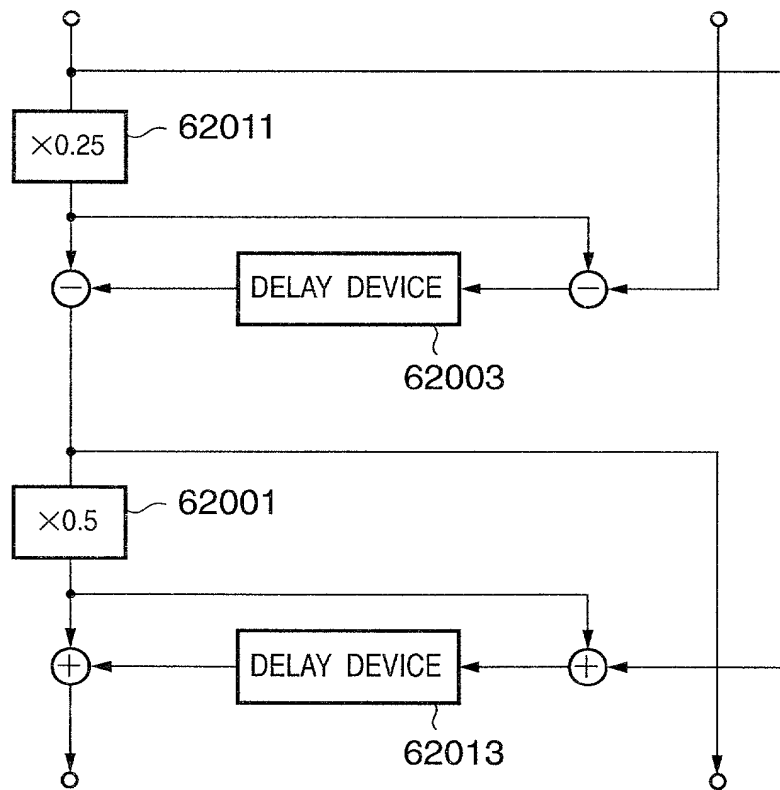


FIG. 90

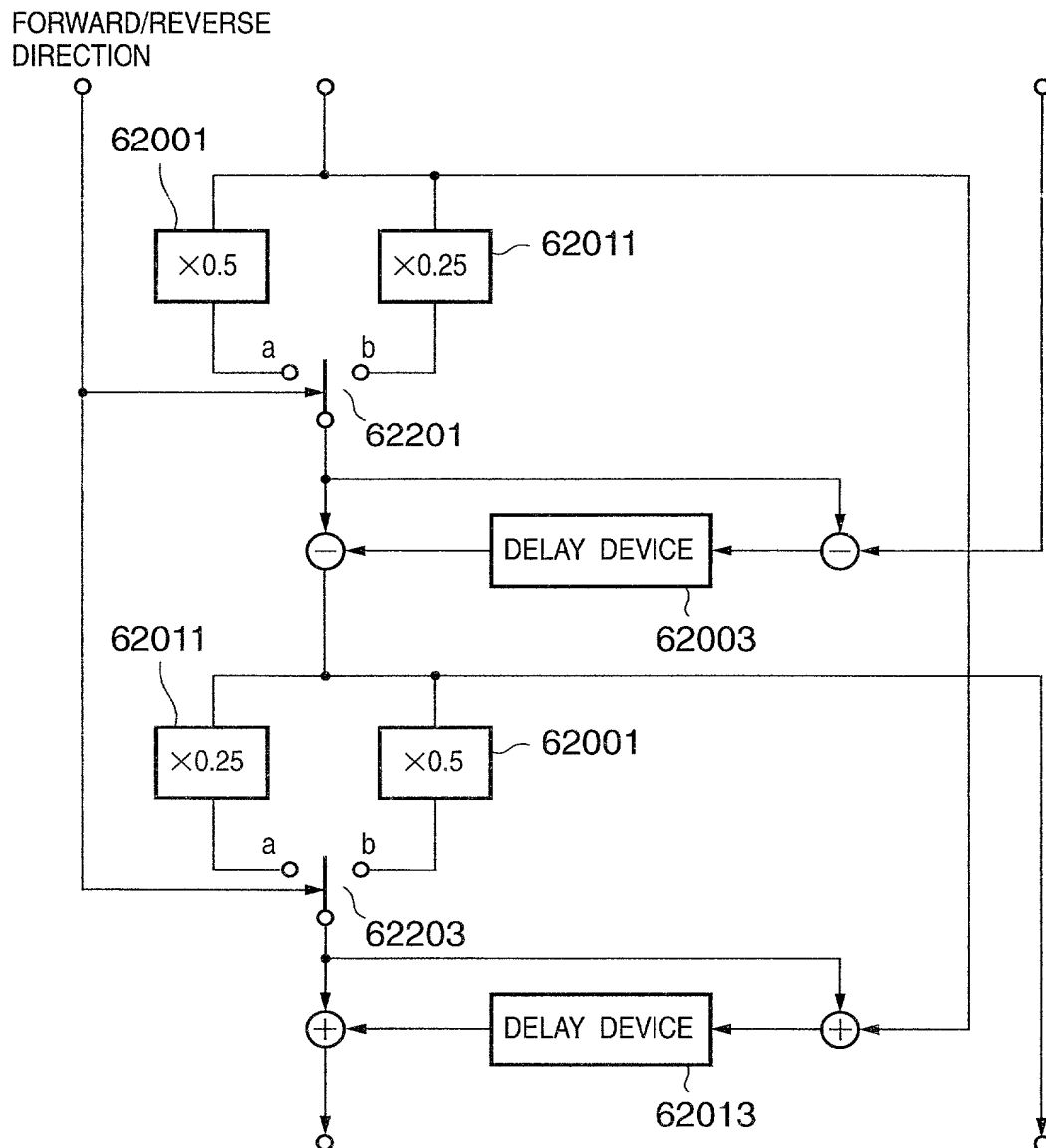


FIG. 91

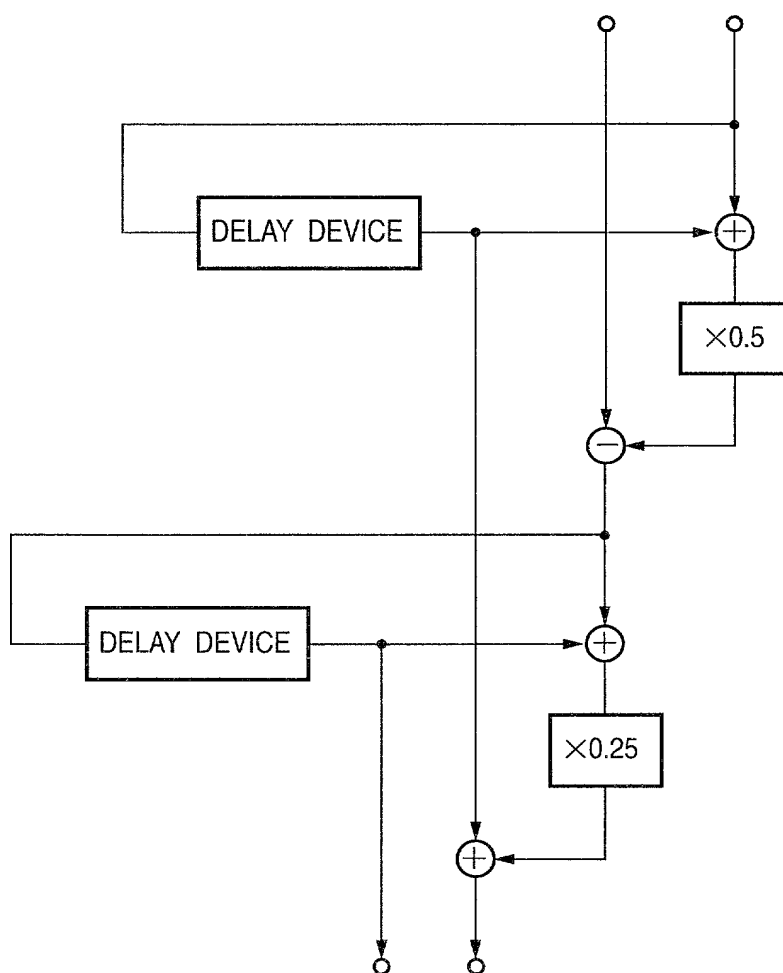


FIG. 92

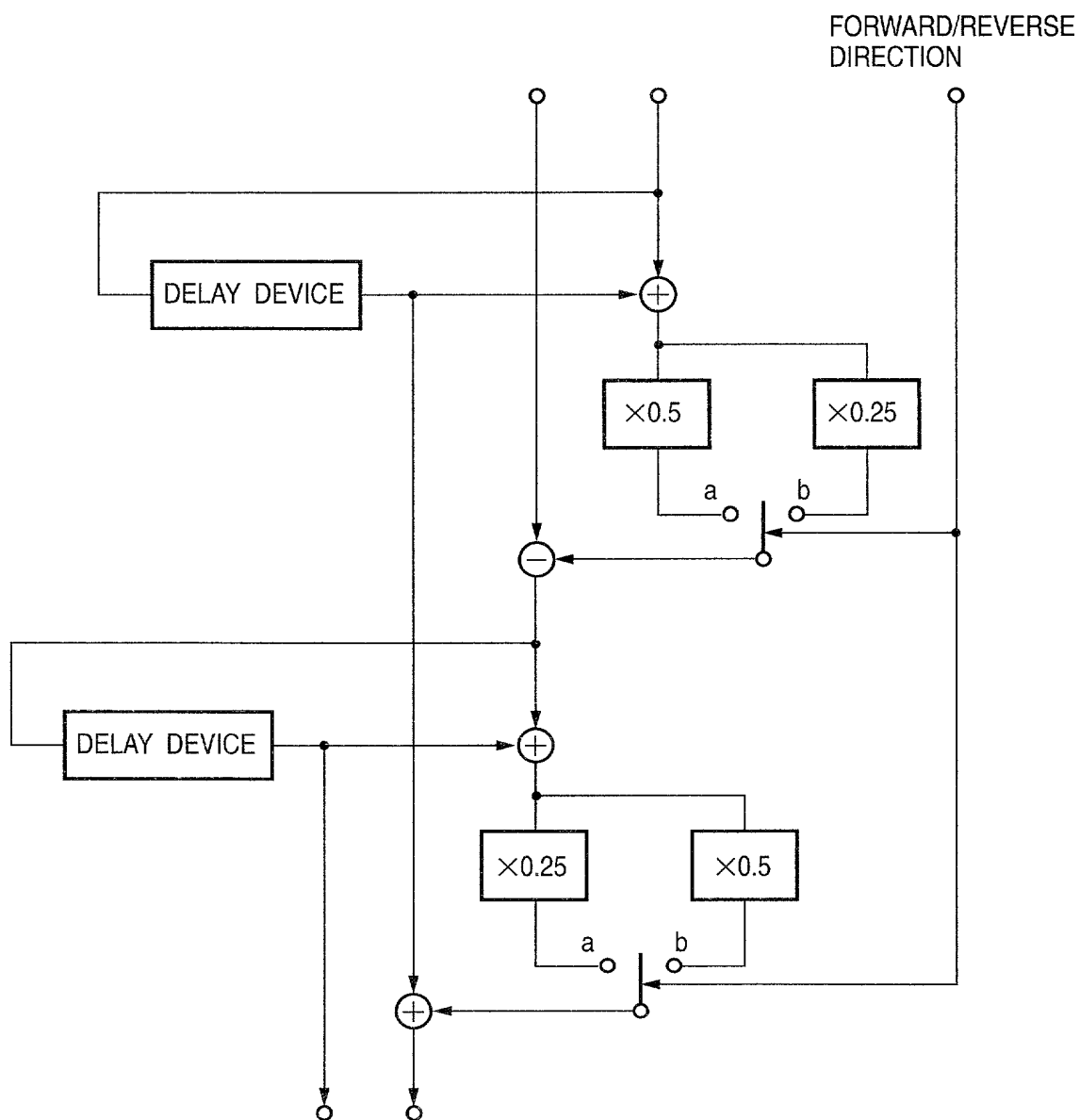


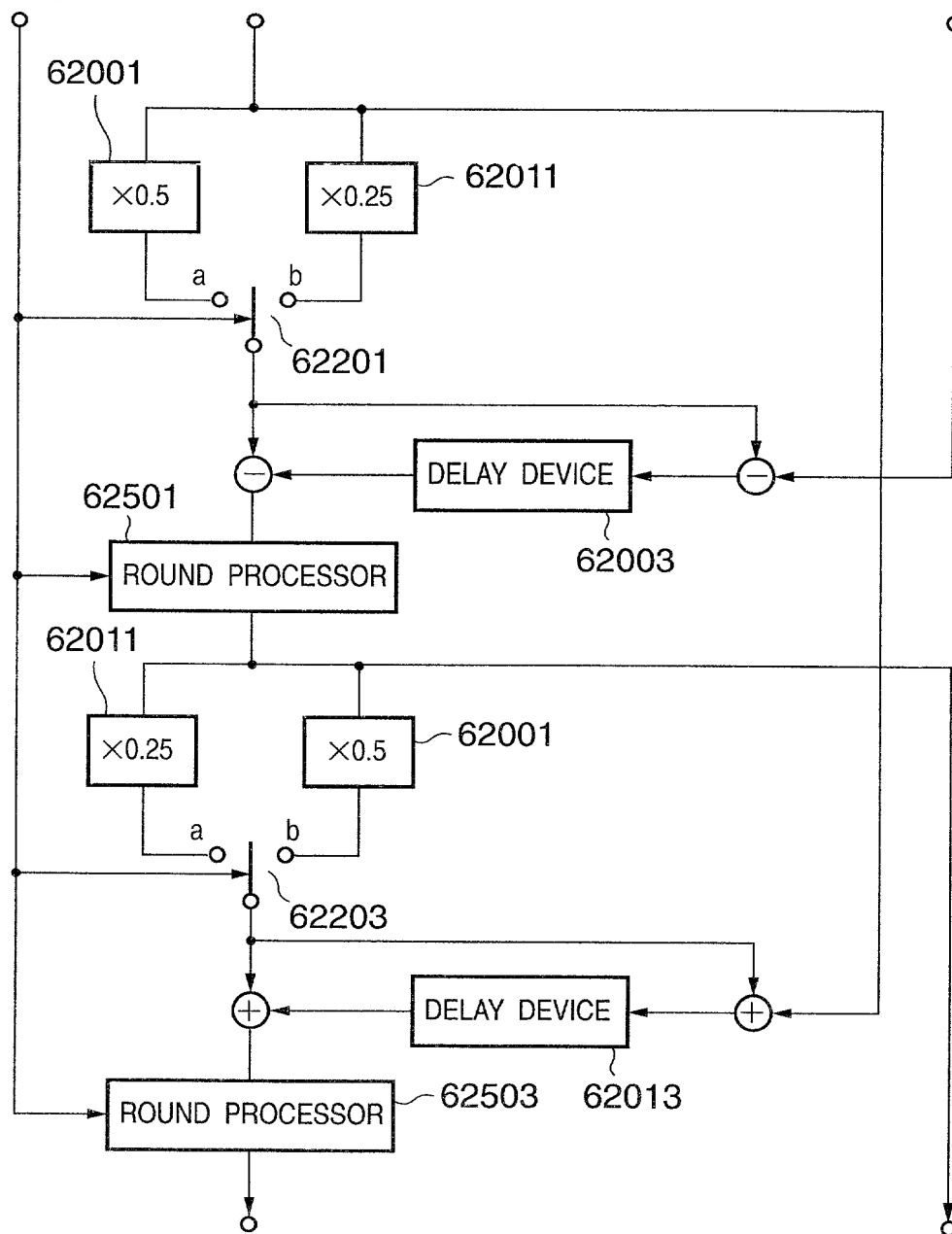
FIG. 93FORWARD/REVERSE
DIRECTION

FIG. 94

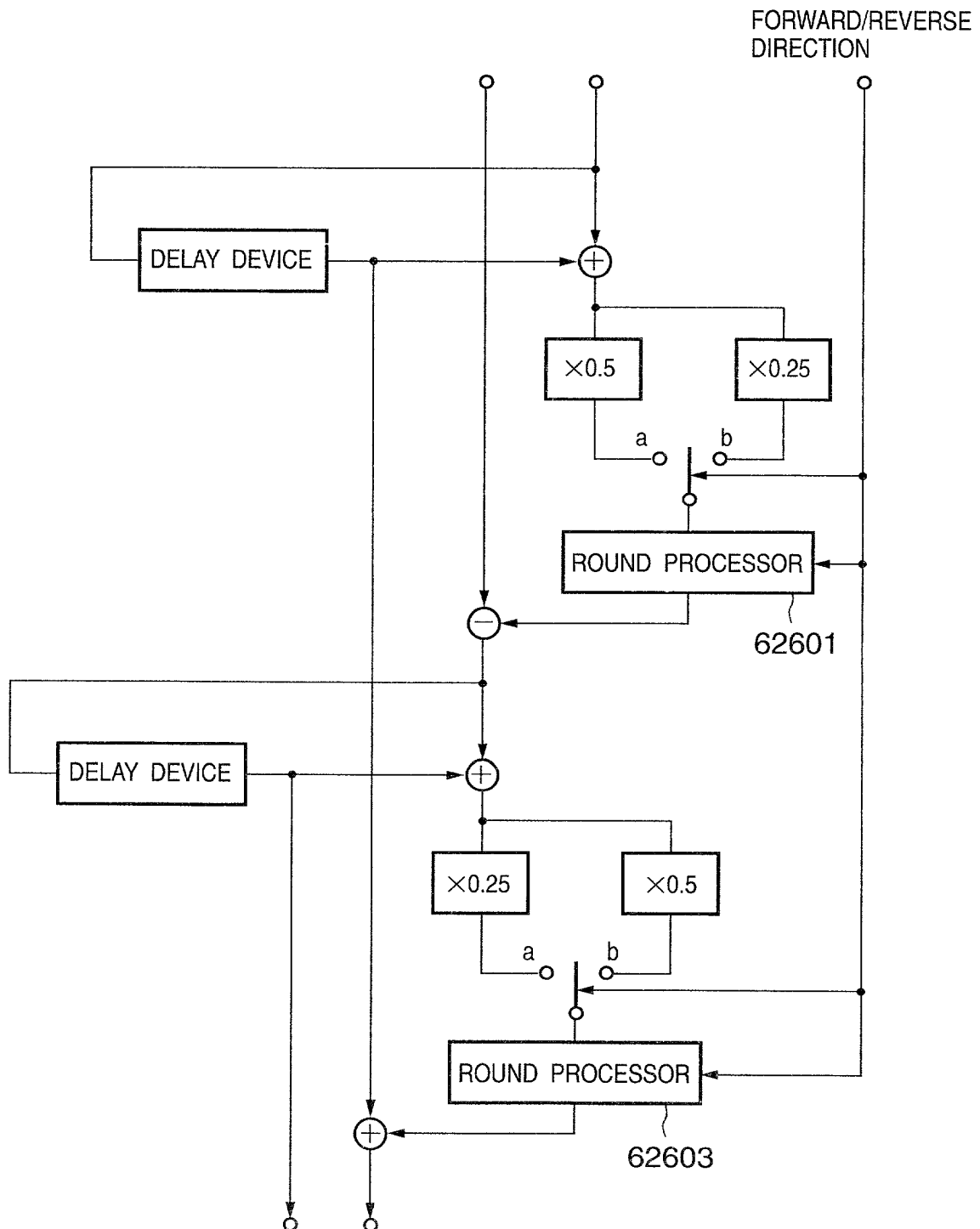


FIG. 95

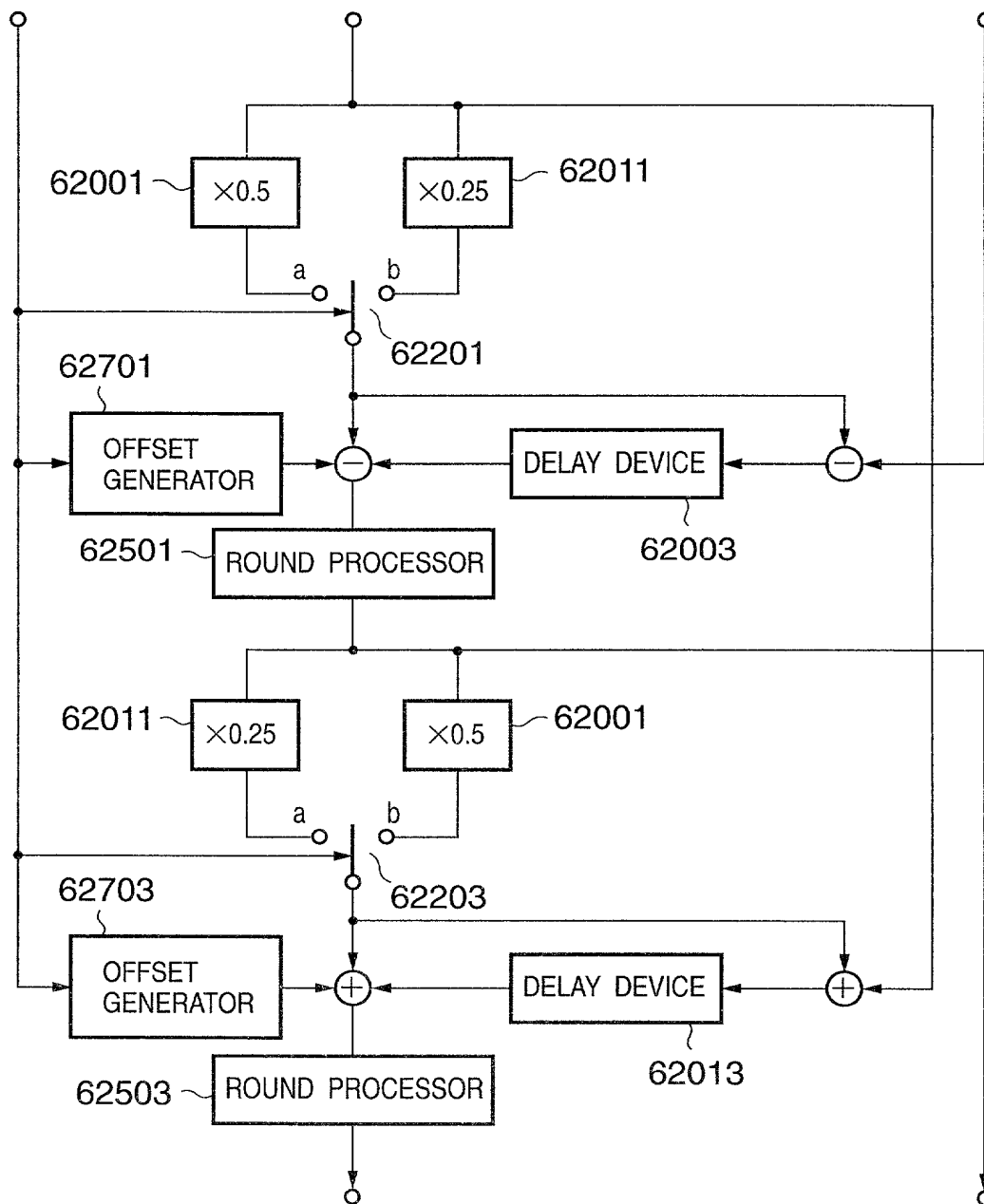
FORWARD/REVERSE
DIRECTION

FIG. 96

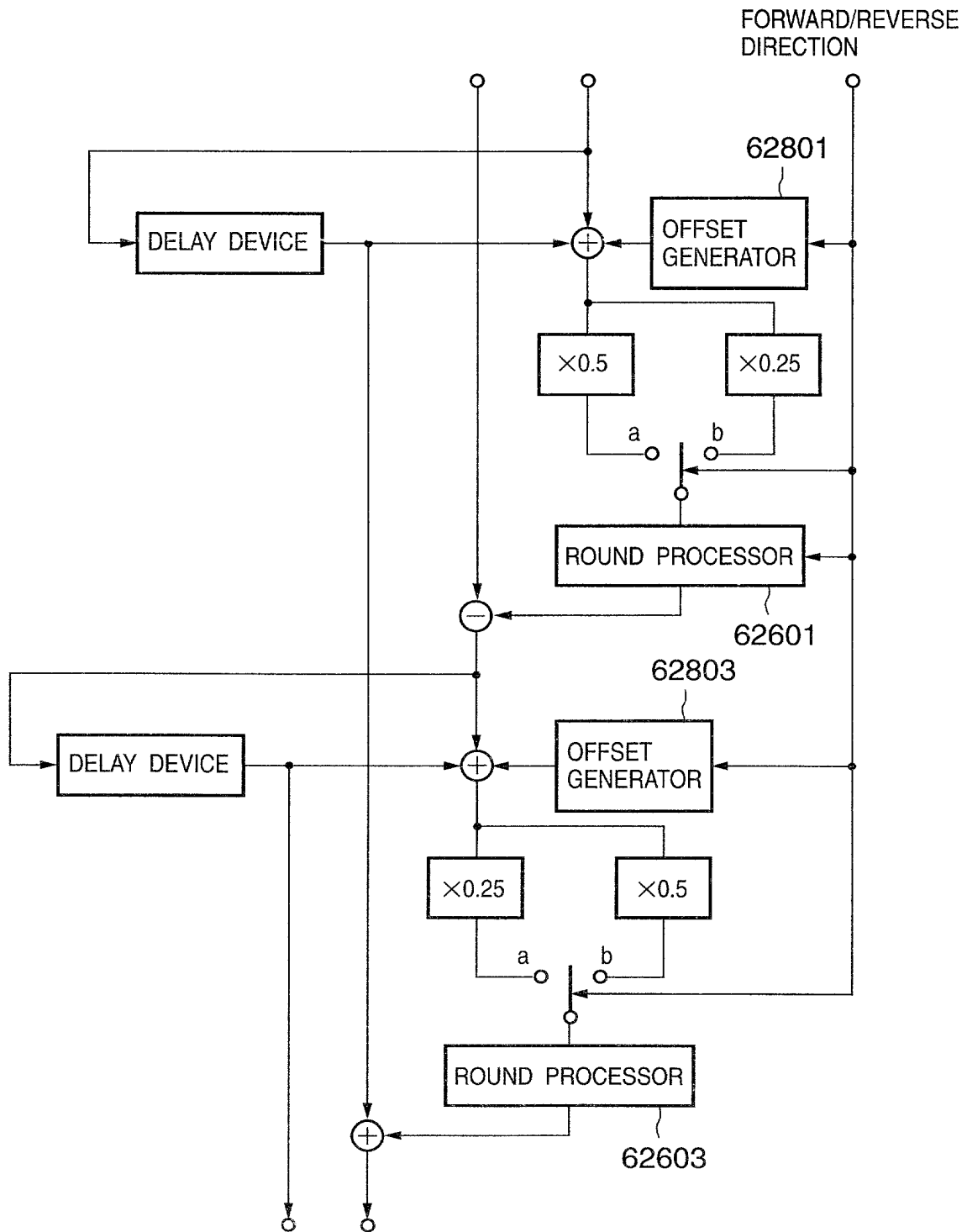


FIG. 97

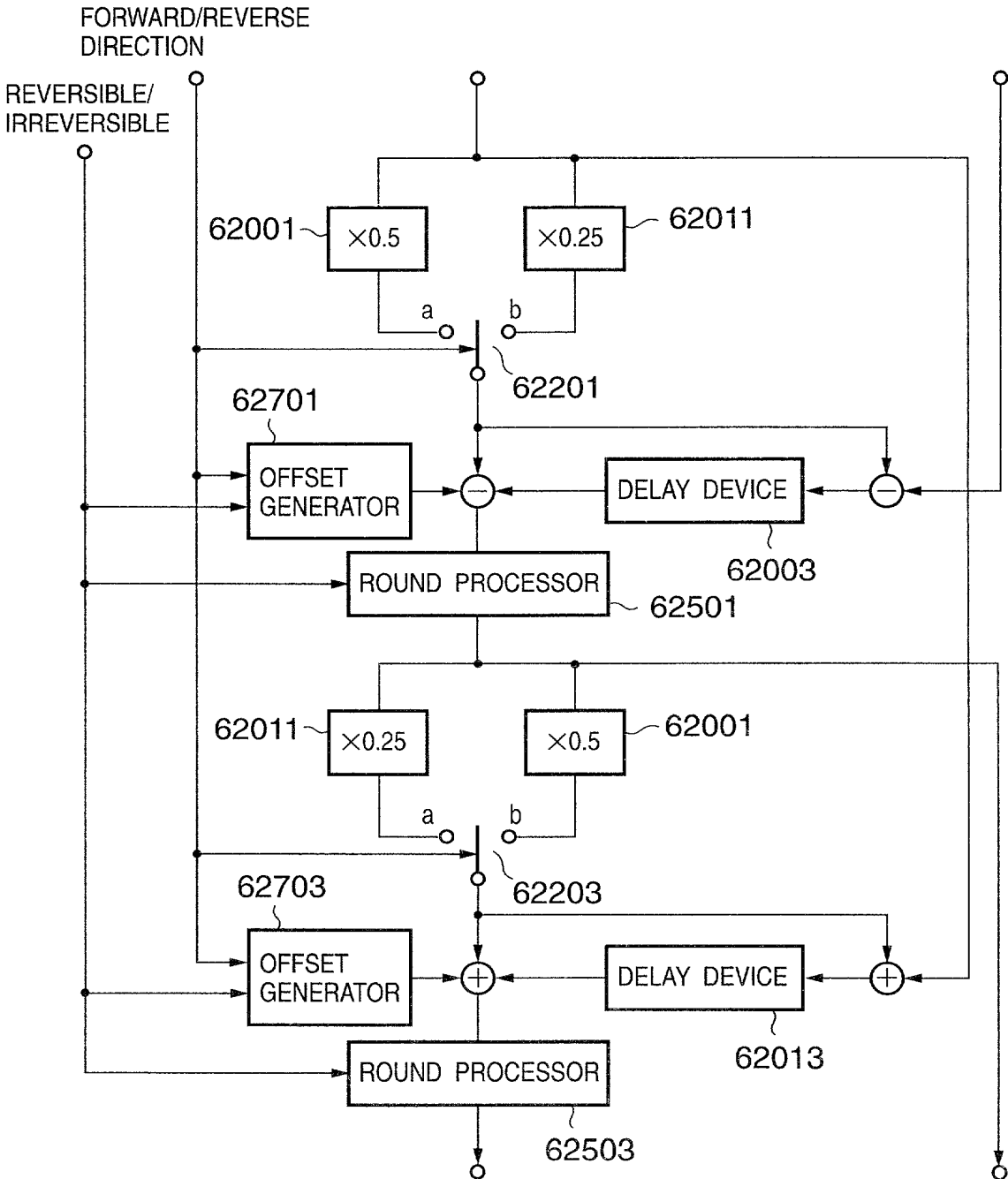


FIG. 98

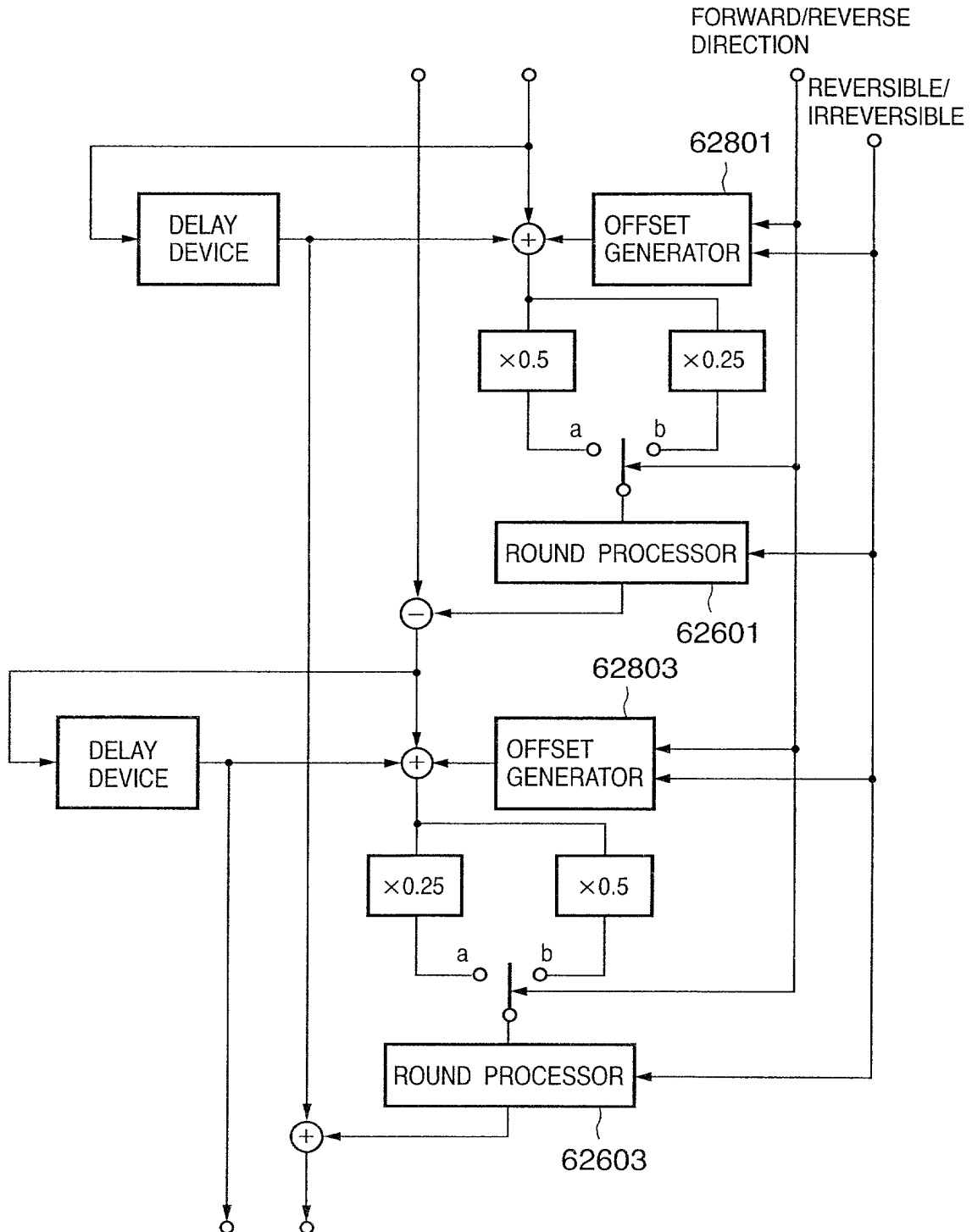


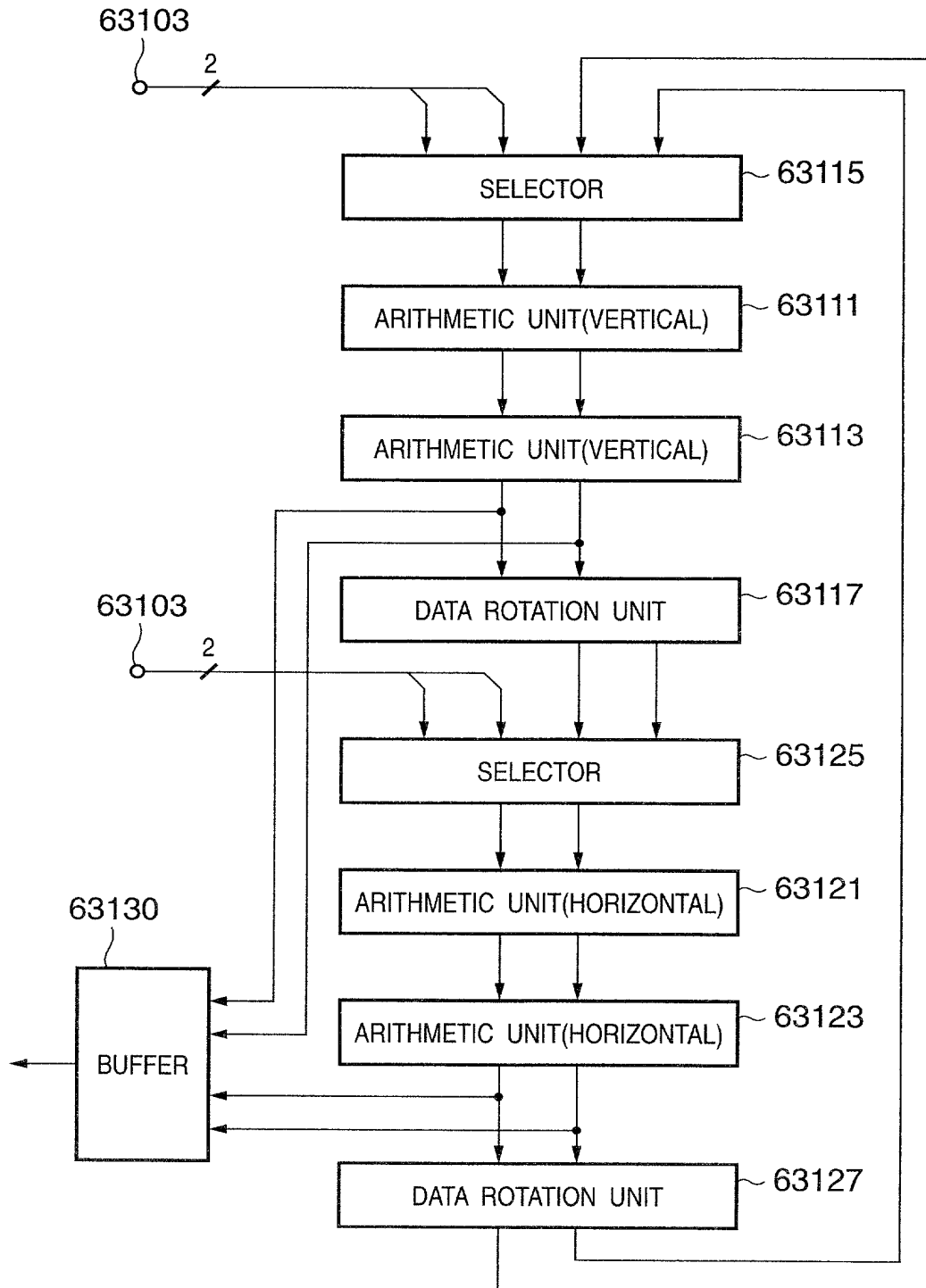
FIG. 99

FIG. 100

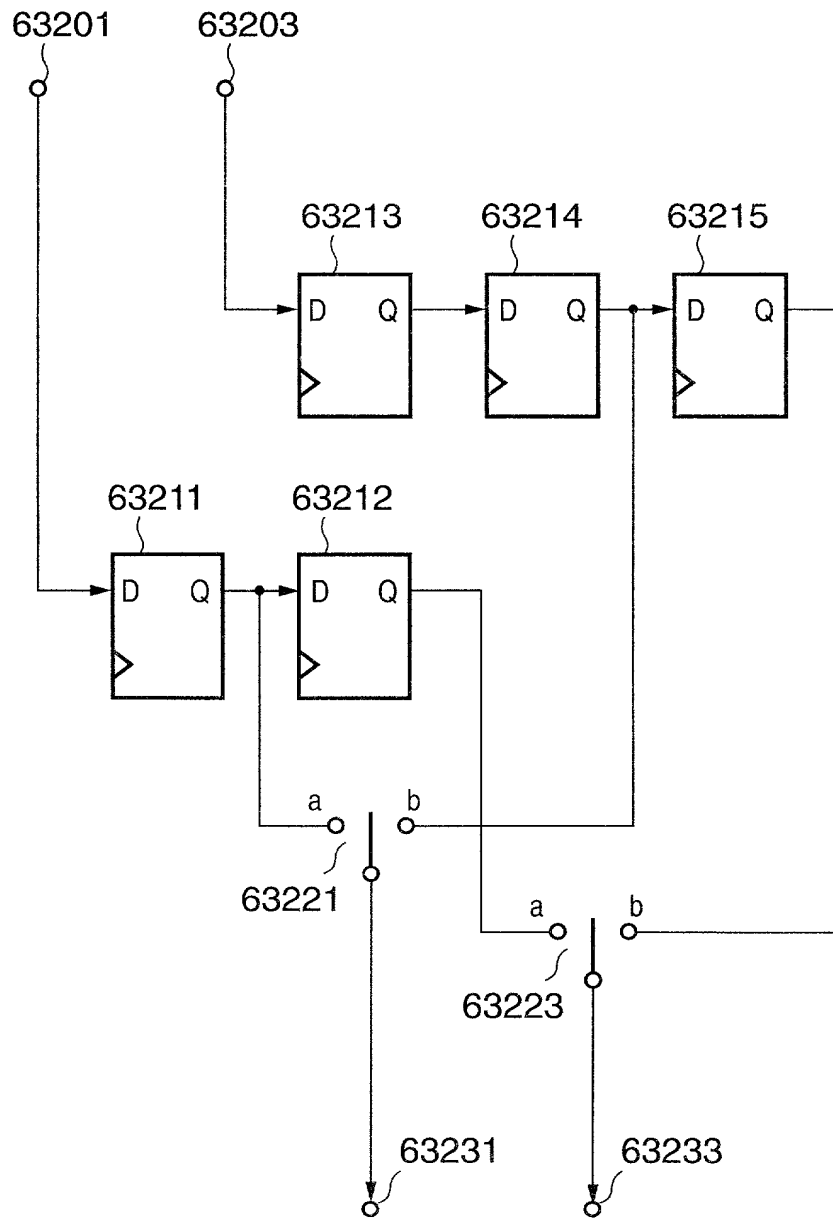


FIG. 101

